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THERE are six principles which should govern the life of every real physician. He should seek: To be kind, that he may come into close contact with the lives of others and penetrate the inner chambers of their hearts; to be fair, that he may weigh all truth without prejudice, and that others may be fair with him; to be thoughtful, that he may go beneath the surface of outward appearances, becoming thereby the master of his own mind; to be receptive, seeking incessantly for new light, and ready to accept it, from whatever source it may come; to be resourceful, that no opportunity for the relief of suffering or the cure of disease may escape him because he has been blind or weak; to be strong, brave to suffer in silence if he must, brave to act and with energy and determination, when at last the time for action has arrived.

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SEPTEMBER ::: 1909

The American Journal of Clinical Medicine

A MONTHLY JOURNAL

DEVOTED TO ACCURACY, DEPENDABILITY AND HONESTY IN EVERY DEPARTMENT OF MEDICINE AND TO THE SAFEGUARDING OF THE DOCTOR

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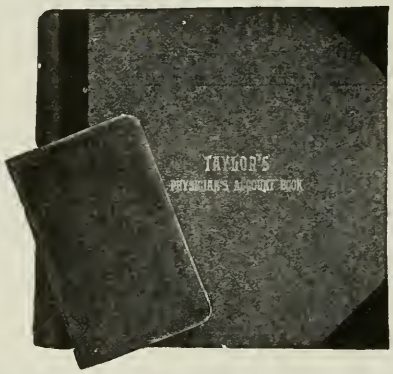

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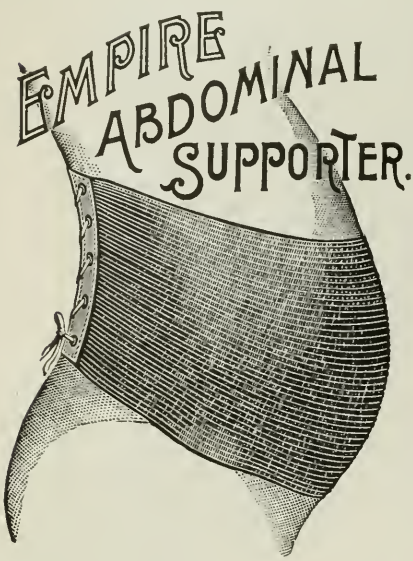

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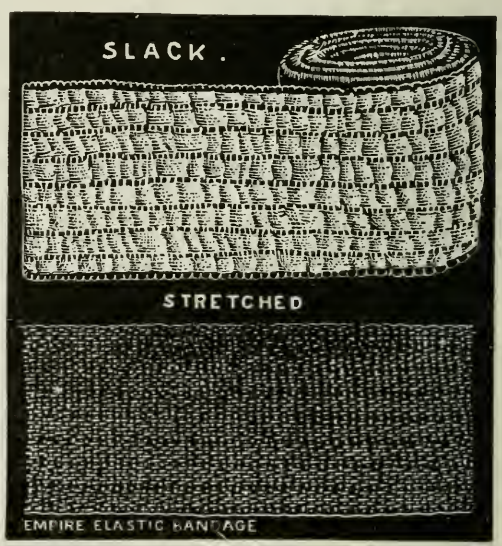

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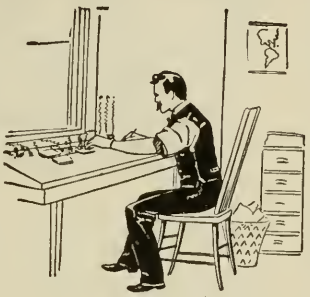

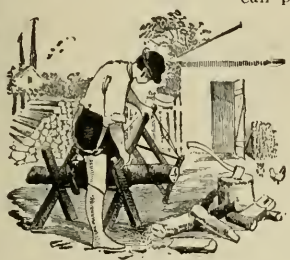

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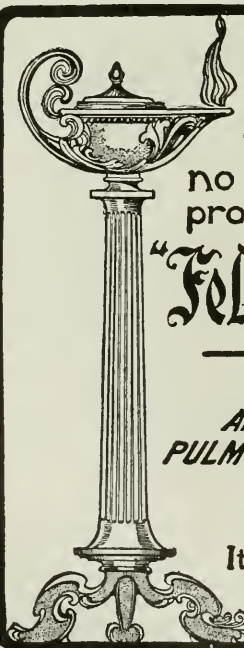

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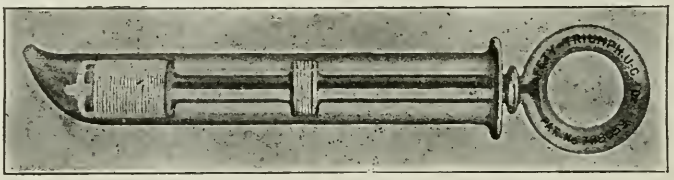

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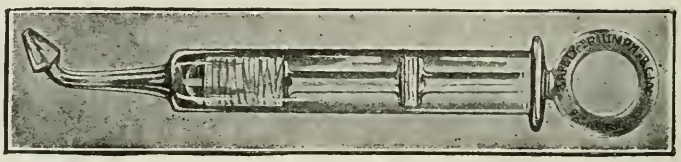

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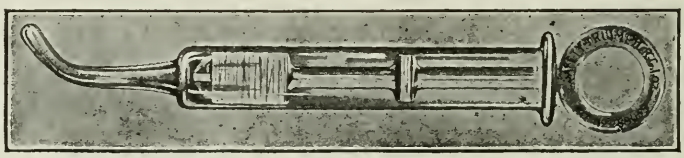

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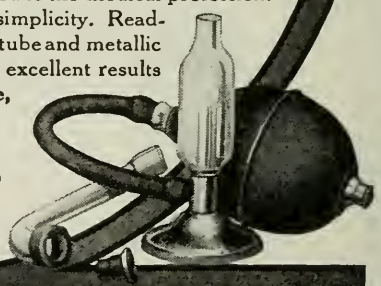

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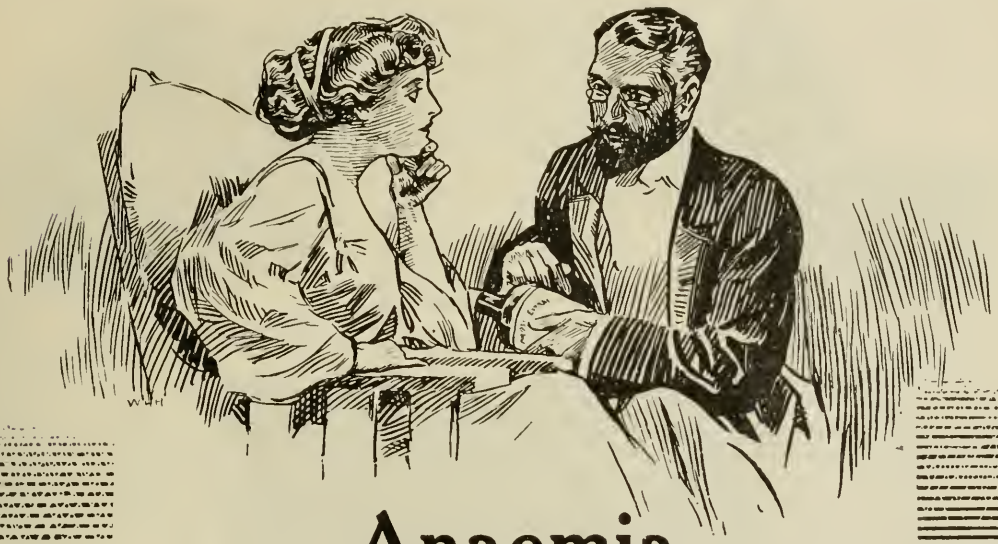

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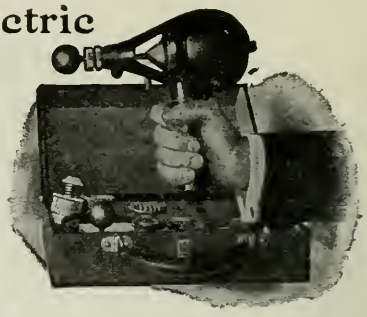

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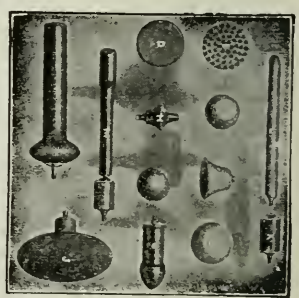

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The American Journal of Clinical Medicine

Vol. 16 SEPTEMBER, 1909 No. 9

Faith and Medicine

We are fast learning that medical faith should be founded upon knowledge, upon scientific certainties, rather than upon a reversal to primitive superstitions. What has our therapy to offer?

NEAR two thousand years ago the sublime Nazarene said, "Thy faith hath made thee whole." Only now are we beginning to realize the significance of that truth, as applied to therapeutics in general—and to the workings of the human mind. Jesus knew that there is no real curative virtue in the physical means he had applied, and that the cure had been wrought by the absolute belief of the patient in his power.

Since his time there has been an unbroken succession of healers who have depended on the same means, and, discarding the aid of real remedial agencies, have sought to invest their operations with such mystery and impressive concomitants as to impress the multitude with a sense of the weird and supernatural powers of themselves. The history of these practicians bears a striking similitude to their original: at first they excite wonder, win belief, unlimited faith; then doubts arise, failures follow and multiply, and the people who at first worshipped end by stoning the *ci-devant* prophets. The stones are significant—weapons bespeak design, whereas the stone-heap furnishes a handy means of gratifying the sudden ungovernable impulse of the crowd.

There is no especial significance in this as applied to matters medical. Cromwell could not have long held his power, but died just in time to avoid such a downfall as Napoleon suffered later. All who make a powerful impression on the mind of man at first, find difficulty in sustaining their power later when the novelty has worn off and the public begins to demand proof for what at first it received on faith. Were Roosevelt to ascend the throne with the plaudits of the multitude, he would nevertheless degenerate into a tyrant before he had reached his sixtieth year. Comstock did a noble work at first, but this has already reached the stage of tyranny and arbitrary restriction.

In religious matters this program has been followed without an exception; but the

duration of sects and creeds has been much longer than the lifetime of the founder. Men firmly believed in Jupiter at one time, and each community placed like faith in its own particular deities. But in time each faith declined, and not the Socratic hemlock nor the fires of persecution could restore it. So a new faith had to be devised, to which for a time men likewise gave assent and belief; but it in turn declined and was abandoned. The Roman Senate might by vote add the name of each deceased emperor to the list of the officially recognized gods, and men would speak of Divus Caligula or Tiberius, but not the torch nor the headman's axe could compel the people really to believe in the divinity of these monsters. They were too well known.

Faith, in the ancient sense, depended upon a manifestation of power whose source and nature were beyond our knowledge or comprehension. Hence men resorted to the practicians who cured by laying on of hands, and by other means incomprehensible to the public and therefore "supernatural." The earliest skeptics ran a fair chance of being stoned, as the practicians did later; but the inevitable failures multiplied, and in time the skepticism prevailed —and a new object of faith was demanded.

Nowadays faith requires a different basis. The innumerable relapses into superstition are merely reversions to the primitive. The progress of development in medicine demands scientific certainties—we must have such reasons for trust in remedies as we have that food will relieve hunger. Our faith is founded on knowledge alone, and the most absolute proofs are asked before we yield allegiance to any therapeutic creed or adoption to any newly proposed remedial measure.

The recognition of this fact might spare us the attempt to hark back to the ancient materia medica. This has been tried and found wanting. It was not good enough for our ancestors, and they sought something better. It has not satisfied the public, and so the people have gone far astray from us in the search for more effective relief. The effort to fold profession and people back to it is labor lost.

"To win favor from either we require a therapeusis that commends itself for reasons that appeal to reason. It must be readily recognized as safer, prompter, more effective than its predecessors, and the proofs of these qualities must be such as are evident to the average comprehension. It must be new also—for why else should we consider it?

That these qualifications pertain to the alkaloids and other definite chemic unities goes without saying—that they pertain to any other therapeutic methods or remedies we doubt. The profession must come to the alkaloids, because there is no other way open for progress, no other secure footing in which we can rest our weight. If our facts are mistaken or our logic at fault we stand ready to be corrected; otherwise—the Wheel goes round remorselessly and Karma rules. Not once, but all the time, two and two make four.

Law, not confusion, is the dominating principle in the universe; justice, not injustice, is the soul and substance of life; and righteousness, not corruption, is the molding and moving force in the spiritual government of the world. —James Allen.

"WHEN OLD AGE CREPT O'ER THEM"

This is an iconoclastic era. Tradition is disdained, authority contemned, and irreverence reigns. Mighty good thing it is so, for dense superstition, grievous error and wrongs innumerable have been transmitted from age to age by those same agencies. No creed is so revered, no tenet so well established, but that they are now called in question; and proof is demanded before assent is rendered to an axiom.

The existence of matter was doubted by Berkeley, but it remained for Metchnikoff to challenge the inevitableness of old age and death. An attentive study of medical literature shows that his views are gaining, and that, like his startling theory of phagocytosis, they are influencing the language and thought of the day and becoming the basis for further development.

The surgeon has accepted his view of the uselessness of the colon and even its possible deleterious influence; the doctrine of fecal autotoxemia has been assimilated with it, and already we begin to hear of lengthy lists of colectomies. Surely, if the colon is not merely useless but an inert receptacle for fecal masses, swarming with pathogenic germs and reeking with their toxic products, which when absorbed into the blood give origin to the vast majority of chronic ailments and whose ultimate effect further is to induce or hasten the degenerative processes collectively embraced under the term "old age," then the sooner we rid ourselves of this menace the better for all concerned.

Where are we at! But yesterday we were struggling to convince our brethren that there might possibly be some truth in our doctrine of autotoxemia, and that our maxim of "clean out, clean up and keep clean" was truly a basal principle of applied therapeutics, only to be scientifically squelched, ponderously sat upon, ignominiously ignored, and every other sort of old thing done to us—excepting shown to be wrong. Now at one fell swoop our whilom antagonists have passed us by and alighted on the self-same road—only far, far in advance.

Festina lente. Be sure you are right before you go ahead. We seem to recollect a time when the thyroid gland was removed as useless, a mere relic of fetal existence, which when diseased or troublesome were better be taken out—"five hundred dollars, please." Now we raise flocks of sheep to reinforce our "shyiness" of thyroid tissue.

We are not quite ready for such an extension of our theory. We wait to be shown more conclusively the absolute uselessness of the colon, and we deny the asserted impossibility of keeping it in hygienic condition by dietary and medicinal means. We have to be convinced of the reasonable safety of the operation for its removal, and of the real benefits accruing. We want to go behind the surgeon's returns and ascertain from the patient himself how he feels, and how a colonless existence suits him. We have a vivid remembrance of cases where unquestionably cystic ovaries were removed, and years later the patients averred that they had secured not the slightest relief from the pangs which drove them to the operation.

We are well aware of the manifold ills that spring from a paretic colon. We know how to treat it; and we also know what satisfactory results follow the treatment. Indeed, these are so satisfactory that as yet we have felt no trace of a need for chirurgic intervention, save in those rare instances where material lesions have developed beyond the power of repair. Here we acknowledge with gratitude our indebtedness to the wielder of bistoury and scalpel, of needle and ligature, the pride of the doctor and delight of the patient. But such cases are the rare exception.

In the meantime we seek to ward off the approach of age by regulating the municipal and domestic hygiene, and the habits of the patient as well as his diet; by studying his vascular tension and the operation of all his vital functions and seeking to establish for each the exact physiologic balance; by restraining mental expenditure, social excesses, domestic worries and business cares. In one word, we seek to establish normal conditions, to conserve energies, to recognize and obviate the tendencies to age and death.

However, this is not a matter of using any one article of diet, even of milk treated by the bacillus bulgaricus, although we gladly avail ourselves of this new aid. It is not so simple a problem, and the difficulty of its solution will ever be commensurate with its importance. But we firmly believe that by availing ourselves of the means at our disposal we may in most instances notably prolong life, useful and enjoyable life, and this in proportion to the patient's willingness and ability to comprehend and follow the deductions from our studies of his case.

May we be pardoned for believing that we can do far more along this line than by resecting his colon and possibly teaching him

how to live without this particular adjunct of his anatomy.

The load you bear may not be light,
But beyond the hill is a vista bright,
So sing this song with all your might,
I—can-do-it. I—can-do-it. I—can-do-it.
And I will!

—E. C. Aurin

EXPOSURE OF MORE "PATENTS"

Under the Food and Drugs Act, the United States authorities have seized and condemned a number of Madam Yale's preparations. Analyses made by the Bureau of Chemistry, Department of Agriculture, showed that Madam Yale's excelsior skin food consisted of over 75 percent of glycerin with a fixed oil or fat, zinc oxide, colored with pink dye and perfumed. Excelsior fruitura contained 16 2-3 percent of alcohol, 29 percent of sugar and small quantities of drug-plants. The excelsior hair tonic contained over 15 percent of alcohol, 82 percent of water and a little glycerin, perfumed. The excelsior complexion bleach was mainly a saturated solution of borax in orange-flower water. The antiseptic contained nearly 17 percent of alcohol, 4 percent of formaldehyde, over 2 percent of boric acid, and aromatics. The blush of youth contained over 6 percent of alcohol, nearly 50 percent of water, a coal-tar dye, perfume, and nearly 44 percent of glycerin. The statements on the labels and circulars were branded as false, misleading and deceptive; and after reading these statements and comparing them with the analyses quoted, there certainly seems little reason for doubting the correctness of the Government's position.

BRITISH NEWSPAPER MEDICINE

A friend in England sends us a two-column cutting from one of the London newspapers, which is of interest. It contains forty-four replies to questions, asking advice on medical topics. In these the writer manages to recommend no less than 138 proprietaries, often in terms too fulsome to admit of classification as aught but paid advertisements. Indeed, it is questionable if the United States authorities would permit transit through the mails to such obvious misstatements as this: "——tea is said to reduce the most stubborn cases of superfluous flesh, improves breathing, purifies blood, and acts as a tonic to the entire system. It is prepared only in Paris under strict supervision of qualified medical men, and is recommended by the leading physicians of all Europe in all cases of obesity."

Queer that we, whose business it is to scan the medical literature of the world, never heard of this wonderful tea.

Quite a large proportion of the firms recommended are American. Evidently British ethics ignores much that would not pass unchallenged in America.

Apart from boosting proprietaries the advice given does not betoken much medical knowledge, but this is compensated by the liberal supply of assurance. He "cures" osteoarthritis, and for hemoptysis advises indiscriminately ice, tannic and gallic acids, "tabloids" of lead and opium, calcium lactate, ferric chloride, hot water-bag to spine, ergotin "tabloids," potassium bromide. No doses are given as a rule, but a book, "Medicine for the Million," is repeatedly advocated.

We thought the profession well organized in England, but if the writer of this advice is legally qualified he should be disciplined; if not, he should be stopped before his very bad advice kills too many good British citizens.

THE INDIAN-CORN THEORY OF PELLAGRA

The report of a number of pellagra-cases in the Insane Asylum at Dunning (Illinois) arouses a sense of doubt as to the correctness of the principles heretofore held as established in regard to that dire malady. There is danger that the symptom-group identified with pellagra may be attributed to that disease in many instances where the cause may be entirely different; for

we must not be misled by surface resemblances and assume that the pathologic conditions and the causal agency are identical in all cases where a certain symptom-group is presented.

If the Dunning cases and others now being reported over the northern states are really pellagra, then our ideas as to the causation of this disease by moldy corn must also be modified. In Thayer's cases no such connection was shown, and if moldy corn was used to any extent in the Dunning Asylum, there should have been a much wider prevalence of the disease than has been reported, since it is hardly to be presumed that of the hundreds of those inmates only half a dozen were alone fed upon this g ain.

There is danger that the use of corn in itself may be seriously affected by these reports. A senseless "joke" about the making of artificial honeycomb some years ago nearly ruined the bee trade, and a mendacious statement of the existence of worms in cabbage, concocted by a drunken pharmacist in whose humorous brain it assumed the conception of a joke, inflicted many thousands of dollars' loss upon the innocent raisers of this humble vegetable.

Corn is the most important vegetable food grown in America, the crop being measured by billions of bushels. Taken all in all, it is the most valuable of our natural productions, more especially of our cereal foods. But it does not take much to start a wave of suspicion over the community; and if this does follow upon these reports on pellagra, associating the disease with the eating of corn-products, it may assume the proportions of a national disaster.

It seems evident that if these cases now being reported are true pellagra, this disease does *not* depend upon the use of corn as it is employed in America. How else can we explain the occurrence of the disease in one single member of a family, or in only six inmates of an insane asylum out of many hundreds, the affected individuals not being those who had in any degree made use of corn more than others under the same condition?

Many years ago a remark by a homeopathic physician, associating the occurrence of cataract with the use of rice as a food, led to an almost universal abandonment of that valuable cereal, which in fact as a result was popularly dubbed "blind-your-eye."

Smith and Hedges, of the Laboratory of Plant Pathology, Department of Agriculture, have been investigating the mycelial disease of corn, the suspected cause of pellagra. They find that the infection of the corn proceeds from the soil to the root, spreading then into the stem, then to the cobs and finally the kernel. It is not unlikely that certain soil conditions favor or hinder root infection, The organism persists from year to year in infected fields, which should for this reason be planted to crops other than corn. They suggest this fungus may be the cause of the socalled corn-stock disease, prevalent among cattle in the West, and that also to this should be referred the numerous deaths of negroes of the South, of socalled pellagra.

In this connection it may be recalled that recently there were newspaper reports to the effect that Japanese investigators believed that they had traced pellagra also to the consumption of diseased rice. If true, that may point to sources of infection where corn is positively excluded.

O may I join the choir invisible
Of those immortal dead who live again
In minds made better by their presence; live
In pulses stirred to generosity,
In deeds of daring rectitude, in scorn
Of miserable aims that end in self,
In thoughts sublime that pierce the night like stars,
And with their mild persistence urge men's minds
To vaster issues.

—George Eliot

SOME FACTS ABOUT PELLAGRA

The recent discovery that pellagra is widely diffused through our southern states warrants some notice of this remarkable disease.

In *Johns Hopkins Bulletin* for July Thayer records his observations on some cases discovered in Maryland. The ap-

pearance of this malady has been reported in Georgia, Alabama, Texas; and especially in South Carolina it has received closer study. Recently a number of cases have been reported in the Cook County Insane Asylum at Dunning.

The symptoms ascribed to pellagra are: Gastrointestinal—nausea, dyspepsia, vomiting, and especially diarrhea, marked in the mornings and often obstinate; a severe form of stomatitis with fiery-red mucosa, eating and swallowing being extremely painful; aphthous ulcers extending over large areas, patches of white macerated epithelium exfoliating, leaving a raw, velvety, fiery-red surface; and distressing salivation.

The cutaneous symptoms are significant. There is erythema on the dorsum of the hands and, in those who go barefoot, on the feet, the palms and soles being rarely affected. These patches resemble sunburn with, however, the margins more sharply defined; they are always symmetrical; they show slight if any swelling, the brilliant-red blush becoming deeper or cyanotic, extending down to the next phalangeal joints and back to the wrist, where it ends abruptly. The affected surfaces soon become dry, scaly and exfoliate in scales, leaving the skin dry, cracked and fissured. Bullæ may form on the hands, filled with serum, pus or blood. The epithelium exfoliates in large masses, leaving these skin areas raw and red, thin and atrophied, often glistening, shiny, with slight superficial wrinkles, cracks, deep-red or brownish, and fissures sometimes deep and hemorrhagic. In marked cases the skin over the last two phalanges becomes dry, deep-brown, with bullæ and exfoliation. Similar changes take place on the dorsa of the feet in barefoots, and in bad cases they also appear over the cheekbones and the bridge of the nose; occasionally about the neck like a collar.

While this erythema is influenced by sunlight, it is readily distinguished from the ordinary effects of sunburn. The appearance is not specially prevalent in summer, and children who run naked show the same location of the lesions.

As nervous manifestations, we have vertigo, and grave symptoms from the cord. In severe recurrent forms we note a general increase in the deep reflexes, especially in the lower limbs; well marked spastic symptoms, sometimes disturbed sensation and sphincter paralysis; reflexes of lower limbs lost, of upper increased; sclerosis, especially in the lateral columns of the cord, lesions of the posterior columns not unusually, and according to Sand with degeneration of the posterior roots.

Neusser summarizes the mental symptoms as follows: At first as a rule confusion, weakness of judgment and will, anxiety, disorientation as to time and place, alteration of disposition from slight depression to hypochondria and suicidal tendency; the patient is often silent, dull and serious, looks as if he had forgotten how to smile, with self-depreciation, delusions of persecution, self-accusation; refusal of nourishment; often mania, the depressed patient becoming suddenly emotional and restless, this followed by apathy or catalepsy. Hallucinations of sight and hearing are common. Mutism is frequent. The mental deterioration progresses, and terminal dementia supervenes.

Clinically, two forms are recognized, namely, the acute, typhoidal, and the milder, chronic or recurrent. The first runs to a fatal end in a few weeks, with active delirium, fever and uncontrollable diarrhea. The second may be prolonged for twenty-five years. With each relapse anemia, debility and emaciation increase, the nervous and mental symptoms advance; the patient becomes cachetic, demented and bedridden.

The onset is usually in the spring. The patient is apt to improve during summer, relapsing in early fall. Apparent recovery may ensue, with recurrence in the spring.

In Italy pellagra is exclusively a disease of the poor, the farm laborer, the consumer of cheap, moldy corn. Great improvement has followed the exclusion of spoiled corn from the diet; the use of drying apparatus for corn, public storehouses, rural bakeries; exchange of good corn for bad; also local

hospitals, sanatoria, dispensaries and economic kitchens. Education in modern agriculture has proven beneficial. The malady is ascribed generally to the consumption of Indian corn gathered too soon and contaminated with some pathogenic fungus (diplodia, etc.).

The first case described by Thayer presented a typic picture of pellagra, except that the relapse occurred in October without one following next spring. The altered complexion, drowsiness, chilliness, and facies resembling that of advanced nephritis so much suggested hypothyroidism that the use of thyroid extract was begun. Improvement was immediate and remarkable; the mental, cutaneous and gastrointestinal symptoms cleared up entirely, and the patient remains well as long as she takes the thyroid extract. The hypothyroidism may have determined the occurrence of pellagra, since she did not partake of maize more than did others unaffected. In other pellagrous cases Babcock did not find thyroid extract curative.

The second case was that of a teamster who could give no causal history other than mixing corn chop for his horse with his hands. This was followed by the development of characteristic pellagrous lesions on the hands, in the mouth, etc.

These cases indicate that pellagra may be far more widely prevalent than is suspected, that its dependence on moldy corn may not be direct or essential, and that the malady is probably spreading widely. It is not limited to the poor in America.

Look out for pellagra. Investigate any case of obstinate diarrhea with salivation and stomatitis, fever, and affections of the backs of hands or feet, with respect to any connection with pellagra.

Apply the well-settled principles of rational direct therapeutics—clear the bowels, disinfect them with sulphocarbolates, reinforce leukocytosis with nuclein, saturate the body with calcium and arsenic sulphides, keep the eliminants free, sustain the vital functions at normal activity, and reinforce the points of lowest vital force, treating symptoms as they arise.

Let us see whether the careful observers trained in the active-principle ranks can uncover cases of pellagra and do more in treating it than the users of incongruous conglomerations and experimental novelties.

Tact is the knack of keeping quiet at the right time.
—G. H. Lorimer

WHERE OTHERS FAIL—AND YOU SUCCEED

This very day it is probable that someone will come into your office who has made the rounds of all the other physicians. They have done nothing for him. The probabilities are that doctor No. 1 welcomed him with real enthusiasm. After a casual examination he found (as he thought) the seat of the whole trouble. A simple prescription would make everything right.

But it didn't!

Doctor No. 2 wasn't quite so sure. He was a specialist. His investigations were confined to the portion of the human anatomy in which he was interested. Eureka! An operation, a brief sojourn in the hospital, and all would be well.

But it wasn't!

And so our poor patient has drifted from doctor to doctor, each one holding out less and less of hope until now the chances are he has classified himself—even if the last doctor has not already done so—among the great host of "incurables." The poor devil has little faith in doctors (can you blame him?) and he has come to you like the proverbial drowning man, grasping at the last straw (-man) of hope. To him the future looks very, very dark.

What are you going to do for him? Are you going to do as the last half-dozen doctors have done—take it for granted that nothing can be done, make a careless, superficial examination, give him a prescription or two, tell him that "if this doesn't do you any good nothing will," and send him away on his dreary search for a real doctor? Sooner or later he will almost certainly bring up in the office of some quack or faddist, who will recognize a great truth

to which you, my friend, have been quite blind—that these chronic patients are not only a great source of profit, but *your opportunity*. The quack may cure him!

What are you going to do?

If you are the kind of man I hope you are you will first of all make up your mind to cure that patient if he can be cured—and to help him anyhow. You'll impart some of that feeling to your patient; dissipate his gloom; restore his faith in your profession; get him into the attitude of mind where he can trust you.

Make a thorough examination. Don't be contented with a mere sight of the tongue, feeling the pulse, an examination of the urine for albumin and sugar. Everything that can be learned about that patient you should learn, even if you have to go over him from head to heels a dozen times. All the secretions and excretions should be carefully studied until you have an accurate idea of the condition of his metabolism. If you don't know how to do these things you should make it your business to learn at once. If you haven't the apparatus you should buy it—you can't afford to be without anything that increases your efficiency in medical practice. If you are too busy to make the necessary tests you should employ others who are competent to make them for you.

When you have obtained all available information concerning your patient you are in a position to treat him intelligently and successfully. Don't, in the name of high Heaven, fall into the ultra-scientific error of thinking that your interest in this man's case ceased with the establishment of the diagnosis. It has really only just commenced. The foundation of the house has been laid but the structure itself has not yet even been begun. Study the clinical indications and the remedies with which you may meet them with just as much care as you did the history of the man's ailment.

Even in the most desperate cases, cases which are essentially incurable, you can work a betterment that is often little short of marvelous; and in many, many a case you can cure where others, less careful and less thorough, saw not a single ray of hope. These chronic cases offer more to the progressive physician who is a positive therapeutist than any other class. They are with us at all times, in seasons of general health as well as in times of much sickness. There is more money in them than in the treatment of acute ailments—a greater opportunity for the making of a reputation.

The physician who can treat these cases successfully never need complain of hard times. He doesn't have to take long drives into the country, or exhaust himself by night work. His office will be full and there will be no disputing of fees.

The secret of success here, even more than in general practice, is *thoroughness. The great curse of our profession is superficiality*. And superficiality is usually another name for laziness!

If you are complaining about the general state of good health, the small amount of practice and your lack of money, why not go a step farther and make a personal "soul analysis?" Can it be possible that you are a lazy, superficial practician *yourself*, and *that's* why you are poor? That the "hard times," in your own case at least, are due largely to that fact? If, having tried your own case and found yourself guilty, isn't it about time that you stirred yourself and *commenced to do things out of the ordinary*—for instance:

Here are a few things that are "crying" for relief—hundreds of them in every community:

Chronic constipation
Intestinal autotoxemia
Chronic dyspepsia—all kinds
Hemorrhoids
Hernia
Torn perinei or displaced wombs
Obesity
Chronic kidney ailments
Diabetes
Chronic rheumatism
Arthritis deformans
Acne
Eczema
Varicose veins
Epilepsy

Neurasthenia

Ulcers—varicose and syphilitic

Every son or daughter of Adam afflicted with one of these ailments would welcome your interest in him or in her if there was the evidence of real skill on your part and the promise of cure or decided relief.

Can we "general men" not enthuse one another to step into these neglected fields and see what can be done? We are here to help one another, and CLINICAL MEDICINE is our clearing house. Tell your troubles and recount your successes along these lines to the "family." Give us a chance to help you. Help *us* when you can and *all* you can. Make this resolution:

"Today I make the forward step—into the broadening field, one commensurate with my capacity for achievement. It means work—lots of it, but—I shall win!"

When you make a mistake, don't look back at it too long. Take the reason of the thing into your own mind and then look forward. Mistakes are lessons of wisdom. . . . The past cannot be changed. The future is yet in your power. —Hugh White

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THE FEAR OF MOTHER GRUNDY

"Is the introduction of new remedies a blessing or a curse to the medical profession and to the suffering and sick among us?"

This is the pertinent question asked by Dr. R. G. Eccles in a recent number of *The Dietetic and Hygienic Gazette.* It seems to him, as it does to us, that there should be—can be—but one answer. Certainly every reasoning being should encourage in every possible way any person, individual or institution which is striving to introduce remedies which may be of benefit to the suffering sick.

Is there such encouragement?

Well, hardly! On the contrary, a stigma is placed not only upon the innovating manufacturer but upon the physician who is brave enough to speak well of him. Let Dr. Eccles explain:

"The paralyzing power of fear—fear that all merchants are liars and humbugs, trying to take advantage of us—has suppressed good judgment, made us the tools of selfish professional ambition among our colleagues, and checked the wholly beneficial rivalry of manufacturing chemists. Common sense, common honesty cries out against us when we refuse to tell what we know about a remedy that has proven of benefit to our patients. We are recreant to our trust, as carers of the sick, when fear of professional censure seals our lips and uninks our pens, where we have fallen upon what appears to us to be a useful new remedy. Old remedies do not need either our praise or our blame except on rare occasions, and under peculiar conditions. It is the new ones that require our support, and when in our cowardly fear we refuse to give it we are remiss in our duties.

"By what right and by what authority do our professional colleagues hold the scorpion thongs of biting disapproval over our heads for doing our sacred duty? On what principle of ethics has it come to pass that telling a truth which is of benefit to all mankind must be classed as 'unprofessional conduct?' . . .

"Why restrain Dr. A's liberty when he wishes to tell the truth about a remedy, for the benefit of his fellow practitioners, because Dr. B. abuses that liberty in order to dishonestly acquire some money? Would it not be much more just to punish Dr. B. and leave Dr. A untrammeled? . . . We forget that it is much easier to corrupt a dozen men than it is a hundred tlousand. We forget that a dozen men with an average of prejudices are much more liable to go astray in judgment than are a hundred thousand aided by the struggle and survival of the fit. We forget that the moment we surrender our own judgment to these dozen men, that moment we become to that extent candidates for imbecility. The unused organ atrophies.

"In the old days, when all doctors were free to tell the truth about their experiences, without being subjected to the subtle disgrace of unprofessionalism, we could all make shrewd guesses as to where there was truth and where falsehood. In these days, when 'without utterance, save the

shrug or sigh,' we 'deal round to happy fools our speechless obloquy,' there is no telling where truth is to be found. The old way educated us and brought with that education a growing sense of personal responsibility. It taught us that while there were many in error there were but few who were positively vicious. The new way is, I believe, branding our souls with the iron of doubt and fear, making us lose our faith in humanity, and Mongolianizing therapeutics.

"Until recent years our best therapeutic gains were made from the most questionable sources. Even within recent years the most important discoveries have not been made by our great practicians, nor has the information regarding their value come from physicians with extensive medical and hospital practice.

"The first report of the value of cocaine as a local anesthetic came from a country practician in an obscure place in Germany. He was previously unknown outside the region around his home among the Hartz Mountains.

"Small places have neither a monopoly of cupidity nor stupidity, but on the contrary, they give us some of the very brightest intellects of the earth. It is not the men with the best opportunities who do the best work. While it may seem true that such men ought to be best able to act as our guides in such matters, history has demonstrated that, as a rule, they are not. The diplomatic, political doctor can win the heights of professional approbation upon a capital in brains that would never count for anything to the man lacking the oily tongue, suave manner and attractive appearance. When there, he gains an experience that is lost, so far as the world is concerned, and he has kept better men from reaching such a place. . . .

"In the meantime, independent thinkers should center their attention upon the most pressing evil—that nightmare of twentieth-century therapeutics—the fear of Mother Grundy. The present thraldom of Grundyism will not permit any of us—under the penalties of professional opprobrium—to tell the truth about any new drug, unless it happens to be altogether adverse.

"It should be an honor and not a disgrace for any of us to investigate a new drug and give our facts to our confreres. Not a single new remedy should appear on the market without our showing our eagerness to investigate its merits and demerits. The present conspiracy of silence against new remedies is a disgrace to our country and a stigma on our intelligence. Until it ends, regression must continue and the tendency to therapeutic nihilism intensify.

"Let us awaken to our own personal interests, and we shall then become willing to give to the introducers of such remedies that just consideration which is their due."

This is but a portion of Dr. Eccles' article, every bit of which we wish every physician might read, it is so filled with truth and so imbued with the spirit of democracy. We are hopeful for the future, because we believe that in the long run the common sense of the medical profession will reassert itself—and already we see signs of a change—a revolt against bureaucracy of thought and action—a reawakening faith in individual men, big enough to think their own thoughts and speak them when and where they will.

God speed the day!

Encouragement has powerful influences in stimulating effort and also in creating and conserving conditions in which men may do their best.

—Horace Fletcher

CLIMATE, DRUGS, OR BOTH

A correspondent takes me to task (1) because I said "the climate-fad has about exhausted itself," and (2) because I spoke favorably of twenty-eight drugs in the treatment of pulmonary consumption. Taken in this way, out of the context, he makes me out an opponent of climate-cure and a "polypharmakist" of the most preposterous description. Is that the idea readers in general derived from my paper on this topic in the January number of CLINICAL MEDICINE?

Taken in conjunction with his further assertion, that drugs are useless in the treatment of this malady and "never cured a case," I set our friend down as so devoted a believer in the efficacy of climate that he considers nothing else of any value, and goes about with a chip on his shoulder ready to fly at anybody in whom he suspects an antagonism to his hobby. Yet, what a simple matter it is if only one takes a dispassionate view.

A few years ago the cry was—Climate! Forget you are sick; quit all treatment; throw off all restraint; seek the climate most recently in vogue; and *think* you are well!

Under this encouragement, dying men and women rose from their beds, scraped together money to pay fare to the "climate," and landed there, penniless and dying, to burden the community and fatten the graveyard. Physicians at these places, anxious as we all are to have patients, had to appeal for relief and beg us not to send them destitute patients in the hopeless late stages. Then "climate" was truly a fad, and it is well that a reaction set in.

But reactions always go too far, and so has this one. In my January paper I called attention to this mistake, and urged my readers not to throw away the unquestionable benefits of climate in the craze for the new fad, open-air life at home. Somehow I always manage to get on the unpopular side of matters!

As to using 28 drugs in treating pulmonary consumption, I should be sorry indeed to limit myself to even 128. There isn't a disease in the category of human ills that requires as many drugs or as diversified treatment as pulmonary consumption. But I don't use 28 all at once, because no single consumptive can possibly exhibit all the symptoms of all the cases at one time. I have my remedies for every phase of disordered function that can be presented, and I use whatever remedy is indicated. If two are indicated, I use two remedies; if 28 were indicated, I should use that many.

But it is very unusual for more than two or three drugs to be required at once, because we treat the most imperative needs first, and when these have been met, turn our attention to those that are then most prominent. Our correspondent does not seem to have mastered—or even suspected—the idea of treating the conditions presented in each case. He has one remedy—climate—and this he applies to everybody who coughs.

I begin to realize that to some doctors the study of the patient, the recognition of the abnormal functional operations presented in that case at that time, and the fitting remedies thereto, is as unintelligible as the Egyptian hieroglyphics or the cuneiform inscriptions on Accadian bricks. They'll take down a great man's prescription and treasure it, employing it henceforth in all cases of that disease, without seeming to realize that his greatness lay in his ability to prescribe *what that one patient then needed, and that never again might he meet a case that demanded exactly the same medication.*

The elements of greatness do not pertain to a practice in a great city, nor to a professorial chair. They are in reach of every doctor who has a patient and is willing to study him.

Fitin' " said old Doc Sykes, "is a amusin' and stimulatin' exercise, enjyed by most men (as spectaters) and some wimmen; but I've always 'lowed that 'sawin' wood' was good enoough fer me. Anyhow it pays better."

PLEURISY ?

A little lady has had repeated attacks of pleurisy, each running the classic course. Last week another such attack developed following a breezy automobile ride with no extra wraps. Same old symptoms: chill, stitch in the side, fever, dry cough, anxious face, repressed respiration.

Prescription: Bryonin and asclepidin, seven granules each; hyoscine, three granules (she is very susceptible to this) with seven teaspoonfuls of water. Directions: Give one teaspoonful every ten minutes till the slightest sign of dryness of the mouth, then every thirty minutes; next two days,

every hour till easy, then every two hours. Iodine to the chest over the friction-area. Bowels kept clear.

Well, she was told to keep quiet; so she didn't, but went out every day, and at the end of the three days there was no indication for further treatment except the iodine to promote resolution. While the attack proved thus trifling I fully believe this may be credited to the treatment, since the attack portended a case of the usual type.

MY IDEAL

Dr. Peter D. Keyser used to tell the following story: During the early years of his practice he was attending an important case—important to him. He had made his diagnosis, prescribed in accordance, but the expected results did not follow. One night he retired to bed, his mind preoccupied by the problem presented by this case, and fell asleep. He dreamed that he was at his patient's bedside, but the sick man's body was transparent, so that he could see every physiologic function carried on: the heart pumping the blood through the resilient arteries, and its return by the veins; the central nervous system sending out its messages to every part of the body and its due response; the bowels rolling over sluggishly, the various glands supplying their secretions. He saw also where the working was deranged, and noted that the disorder was not that for which he was treating the patient.

In the morning he awoke, deeply impressed by his dream; went at once to see his patient, reexamined him, and found that his first diagnosis was mistaken; the dream-diagnosis was correct.

This story so deeply impressed me that from the day I heard it, now a quarter century ago, I made it my ideal so to know the physiologic working of the human body that I might be able to dream such a dream, and to come as near to it as possible by so studying my patients as to enable me to recognize the derangements of function presented by them. But not content with this, I have earnestly sought to render myself likewise familiar with the properties of remedies, as such, and to apply them intelligently, and therefore with precision, so as to restore the normal functions of the deranged organism. Possibly I have been wrong, for I am quite sure any recent graduate could make a better showing than I before any state examining board—and I very much doubt if I could pass any one of these. But when it comes to my true work, that of treating the sick, I would not exchange what I have learned by studying in the great Book of Nature for all I might have learned from printed books and from laboratories in the same time.

Of all departments of medicine I have most loved this study of the patient and the application of remedies; and yet, now after forty years of such loving study, my greatest wonder is at the very little I have learned.

Of course some folks won't like you
When they see you "feelin' good."
Some folks are never happy
Never would be if they could.
—Carrie Jacobs Bond.

ANALYZING NOSTRUMS

We receive many requests for information as to the nature and composition of various nostrums; and these lead us to some consideration of this matter.

Many people suppose that any expert chemist can readily make qualitative analyses of such mixtures and determine the exact quantity of each ingredient present. Such a thing, however, is not possible. And were one to reduce the mixture to its primary elements and ascertain just how much oxygen, nitrogen, carbon, etc., were present, that would give no data whatever as to the manner of combination of the elements present in the original materials.

The chemist can ascertain, of course, whether, for instance, any alkaloids are present, and then by testing seriatim for each of the ones best known, he can tell within approximate limits which of these has been used and about how much. Inorganic substances, such as iron, arsenic, phosphorus, calcium, chlorine, iodine, and

their combinations, can also be determined with reasonable accuracy. He can recognize flavors and odors, and from these data reconstruct the formula fairly well. But this is about all the chemist can do to aid us here.

We have repeatedly stated our conviction that so far from being exhausted the field of drug-therapy has scarcely been scratched on the surface; and, as in most of our statements, we do not ask the reader to take our word, but to himself act as judge and jury, and try the case. And here is an excellent opportunity.

Let the physician who wishes to know the composition of any quack remedy note its effects on the patient and from these deduce the probable ingredients. If your knowledge of drugs is perfect this will be easy. Can you do it? If not, you can scarcely claim that you know drugs so completely that you can not be taught any more about them.

Suppose you test your knowledge of the tools of your own trade by trying this simple experiment? It should be a satisfaction to you thus to demonstrate the perfection of your professional training, and your own proficiency as a clinical observer and a practical therapeutist. Or, on the other hand, you may possibly learn something.

We earnestly hope that one of the things you will learn may be the extent of this field and the infinite number of valuable things to be gathered therein.

Drugs act chemically or dynamically. Chemically they kill microorganisms, neutralize toxins, or act directly on the tissues with which they are brought in contact. Dynamically, or vitally, they elevate or depress some one or more of the vital functions. Get rid, once for all, of the medieval notion that there is something mysterious, inexplicable about the powers of any drug. There is not a drug in existence whose effects may not be traced to their source in one of the two modes of activity above stated. It is simply a case of knowing the vital functions in health and in disease, and recognizing departures from health; then of noting the action of remedies in restoring the physiologic balance.

Drugs may act on the temperature, respiration, pulse, or by increasing or lessening any one of the secretions or excretions. It requires a quantitative examination of the urine and an investigation of the feces to ascertain such action with scientific exactitude. The drug influence may be exerted over the sensory nerves, and we have to depend on the statements of the patient here, until a practical esthesiometer shall have been placed in our hands. The effect on vasomotor conditions must be studied in the sick-room, on the living patient; and here is the grandest of opportunities to the really expert clinician.

Failing all these, we are not yet at liberty to assert the uselessness of the remedy unless we also are in a position to judge of its possible influence over the internal secretions.

But if we are qualified to thus trace the action of remedies through the human body—and surely we should be thus qualified, and our patients suppose us to be—it should not be an impossible task to deduce the composition of any quack nostrum from its effects when taken.

The physician who is in the habit of giving single remedies for single purposes and administer them himself will be far more likely to succeed in such observations than the one who orders mixtures and leaves them to the pharmacist to dispense.

But the sunshine aye shall light the sky,
As round and round we run;
And truth shall ever come uppermost,
And justice shall be done.
—Charles Mackay.

HUMAN CONTROLS

It is a pity we can not avail ourselves of controls in testing our remedies clinically. Sometimes we can. Two sisters came to me at the same time with whitlow. For one I painted the first phalanx of the affected finger with lunar caustic, repeated until a thimble-like crust formed. The other I let alone. The one whose finger was

painted thought she suffered a whole lot, and had she not had the opportunity to compare her suffering with her sister's (as she acknowledged) she would not have realized the notable benefit she had derived from the treatment.

Neither should I.

That song is sweetest, bravest, best,
Which plucks the thistle-barb of care
From a despondent brother's breast
And plants a sprig of heartsease there.
—Andrew Downing.

CHEER UP—THE BEST IS YET TO COME

It pays to carry a cheerful face, to bury—and burn—the mask of gloom; for we're all alike in the great world-race—we hate the grouch and begrudge him room. I like the fellow with generous grin who doesn't care whether it shine or rain; who can come up smiling when he's downed—then gritting his teeth buck the line again; whose eye is bright when it looks into mine; whose courage is firm and his manhood pure—fate weaves for him in the loom of time a future sweet and a life that's sure to carry a message of faith in man and strength to conquer grim Despair. So, Doctor, be this man if you can, the prizes you know are for men who dare; but seeking your own in the world's great mart, remember this, that the prize most fair is to ease the pain of a burdened heart and "plant a sprig of heartsease there."

So here's to the doctor of cheerful mien; may he have more lives than the proverbed cat; he'll prosper, we know, if his fight be clean—he's a CLINIC man, can we doubt of that?

Of a deep and difficult problem we must, all things being equal, take the richer, sweeter side. It is always best to believe the best. – David Swing.

WATER DRINKING

If the span of human life is not greatly increased in these passing years, it will not be from lack of exact knowledge as to how it may be done. Recently some three or four "elixirs of life," or preventives of old age, have been announced, all of them "sure things." Thus we are told by an oldtime physician that the secret of immortal youth is in consuming large quantities of distilled water every day. He himself drinks about a gallon a day, or nearly thirty barrels a year, and is still hale and hearty, though over eighty years of age.

While this recipe for long life may hardly be considered infallible, there is undoubtedly much virtue in the copious drinking of water, whether distilled or not. The tendency is to drink too little to keep the bodily functions in a healthy state. More water, more sleep, a careful diet, less worry, doubtless constitute as good a platform for attaining health and long life as any that can be put together.

It is a sad comment on this country that during the year just passed, a year of peace, the United States spent seventy percent of its gross income for war and the results of war, and more for war and war tools than for its entire public-school system, thrice over.
—Hubbard

CHANGES OF ADDRESS

In order to secure uniformity a radical change is being made in the system of house numbering in the city of Chicago. With the exception of the business district in the center of the city, and the south side, the house and business numbers are all to be changed, to take effect September 1. Thus, after this date the address of CLINICAL MEDICINE will be 4747-4757 E. Ravenswood Park, instead of No. 1420-1424, as heretofore.

To avoid confusion (more or less of which seems inevitable) we wish to urge all our Chicago subscribers and correspondents to advise us of their new addresses as soon as possible. Please attend to this matter at once. We shall appreciate it, also, if every reader of this journal who for *any* reason changes his address, whether he lives in Chicago or elsewhere, will inform us of the change as promptly as possible.

Vesalius and Anatomy

It is the lot of every reformer, every innovator, to be misunderstood—perhaps persecuted. He must needs be a brave man, for like Vesalius, the subject of this sympathetic sketch, he stands opposed to all the power of Established Thought

By VICTOR ROBINSON, New York City

Vesalius broke through old traditions in search of the truth, knife in hand, at the risk of life and reputation.—OLIVER WENDELL HOLMES.

Vesalius appears to me one of the greatest men who ever existed. Let the astronomers vaunt their Copernicus, the natural philosophers their Galileo and Torricelli, the mathematicians their Pascal, the geographers their Columbus, I shall always place Vesalius above all their heroes. The first study for man is man. Vesalius had this noble object in view, and admirably attained it.—PORTAL.

THE day merges itself in the museful dusk, it yields to the silent caress of the clasping shadows, it permits the pensive embrace of the gentle evening.

Yet all is not dim nor darkness—there is still twilight and starlight and moonlight, and lo! from the window gleams the cheerful lamplight.

Cease to ply your tasks, O men. Follow the nearest path that leads to home. For you a flame is burning, and a loving woman waits. Do not tarry, for she expects you. If you linger she will peer with anxious eyes into the night—and see nothing. See, she keeps the supper warm, and your chair is ready. Take your place at the head of the table and sit among your family. Hasten, the darkness is deepening.

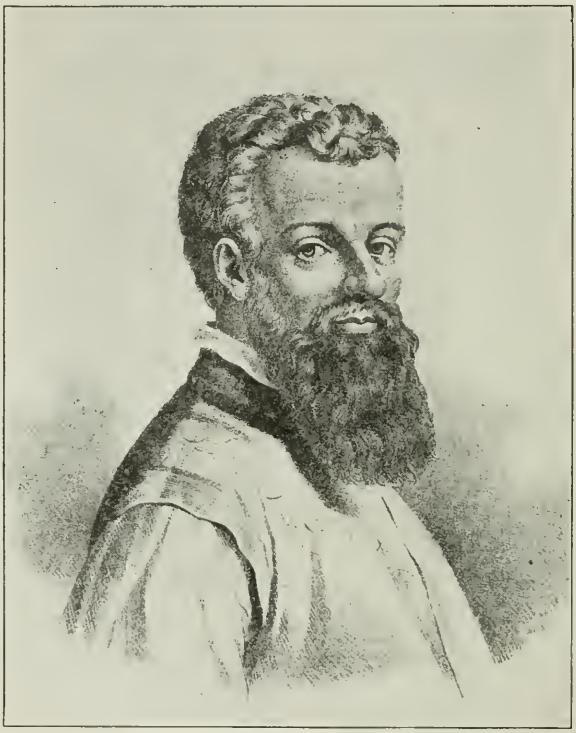
Soon the soft-shod Morpheus lowers his sable curtain, and all the world seeks its bed and travels to the City of Sleep. On the pillows of forgetfulness it lies, and covers its body with the blankets of peace. The bustle is stopped, and quarrels are over at last. Anger is gone and sorrow has fled. Now worry is routed, and misery made to halt. Here are the portals of repose; come and enter, O weeping eyes and wounded heart. Where are the tears, and what has become of pain? Ah, they enter not the beautiful land of oblivion, and of them the slumberers know naught. Soft is the air of dreamland, and easily it is inhaled. Chant the lullaby song of rest, and raise not your mantle, O somnolent god. Over all silently waves the soundless banner of a silken calm.

Sleep on, weary world; sleep, sleep, sleep.

Refrain—for all do not sleep. The night has a life as intense as day. It is then that the humble badger comes from its burrow and the cricket chirps to its little mate. It is then that the lonely poet stands beneath the stars and frees his soul from the limitations of time and space. In the damp of the night the caterpillars crawl forth to feed on the leaves, and the plaintive whip-poor-will laments its name in sadness. Now the nightingale's golden tongue is unloosed, and like a song-intoxicated spirit it warbles a melody to the beloved and blushful rose.

The solemn owl, that on the bough of the sycamore tree blinked like a fool all day, has become the king of the air and will outface the royal eagle. With a deep and doleful tone it toots through the silent forests, and its mysterious, melancholy voice, so ghost-like and ghastly, sends a thrill of terror through the hearts of oak. Fearlessly outspreading its pinions it sweeps like a silence over the distant hills—the hunter of the night is after his prey.

The night is the time for lovers—the whole earth swarms with them. The night is their trysting-time, for they are worshipers of the moon. The night kindly hides them from the outside world, and converts every retreat into a holy place. . . . A little canoe glides along the placid stream . . . the oar ceases to be held, the unguided boat drifts with the tide . . . but think not it is empty. . . Arm-in-arm through Lovers' Lane they wander; many sit at the water's edge; and there is scarce a spreading tree but shelters a youth and a maid. Into this sacred secrecy we must no linger pry, for the gentle words that are now uttered are meant for themselves alone and the brooding night—the night that has a romantic heart but tells no tales.



ANDREUS VESALIUS
A. D. 1514-1564

Vesalius Secretly Dissects the Stolen Corpse

Alas! that some should wish the night to cover deeds that daylight must not see. Hark, why are the footsteps of that fellow as silent as his shadow? If he had the wings of the bat he could not sail more noiseless through the air. The furred cat could learn from him the soundless tread. To the end of the town he walks, and e'en when the watchful dogs bark aloud he is as quiet as the swinging carcass of the convict that hangs moldering on the gibbet. Ah! save us, Virgin Mary, for thither is he bound. Stealthily he climbs the slippery steps and steals the corpse. (The moon looks calmly at his pale face.) Oh, ye blessed saints, protect us from his evil eye—it is the same youth that last week robbed the charnel house and dug the dead from their graves!

The living thief descends from the gallows and carries the dead thief on his shoulder. A figure emerges from the gloom. Heaven grant it be an officer of the law. Well, it is, but he sees nothing and passes on. The youth drags the decomposing carcass toward his home. Its odor is frightful, but it does not offend his nostrils. He clutches the decayed frame tighter, it is to him a precious thing.

At last it is safe in his own room. Impatiently the eager anatomist draws his knife and begins at once to cut the body. If he be discovered, he too may be among the dead, for the Merciful Church expressly forbids the dissection of dead human bodies, and this very year the fires of the Inquisition have saved many heretic souls by burning their sinful flesh. Aye, it would go hard

for the impious youth, and rightly too, for he has already earned the enmity of priests. The Infallible Church has always preached that as God took a rib from Adam to make Eve, man has one rib less than woman, but since this bold blasphemer began to dissect human bodies he has discovered the untruth of this theory.

Have a care, Vesalius, or the hot flames of the Holy Inquisition will burn your own body into an ash for the winds to scatter.

Now the moon goes away, and the traveling sun comes home. The badger has returned to its hole, and the voice of the cricket is still. The poet's vision is faded, and the sorrowful whip-poor-will is silent. The caterpillar has ceased its feast, and the nightingale sings no more to the bashful rose. The helpless owl is stupid again, and weaker birds dash with impunity against his blinking eyes.

The day with all its duties has dawned, and the fond lovers have separated.

They who have done unlawful deeds by night now tremble at the blazing sun and its searching rays, but Andreas Vesalius is unafraid. This proud moment he would defy the Council, and the piled-up faggots of the dreaded Inquisition could not make him recant. In his eyes shines a light that seems to dazzle the beams of the heavenly sun itself. He, too, feels himself high . . high . . . above all clouds. So Praxagoras must have looked and felt when first he distinguished arteries from veins, for during the night Vesalius has discovered the structure of the human heart!

The Wisdom of the Great Becomes a Stumbling Block

Among the sad facts in the history of certain eminent men is the lamentable circumstance that though during life they sailed in the advanced current of New Ideas, no sooner are they dead than their followers convert them into a dam to beat back the overflowing river of progress. Thus it is that he who wished no limit to be placed on freedom, himself unwittingly becomes the clog by which men cry, "Halt!" Disciples are often a nuisance; they forget we must march on—beyond their masters. If Heine is correct in assuming that heaven is ruled by an Aristophanes, surely nothing can move him more to mirth than to reflect that a mortal whose contemporaries hunt him as a heretic is considered by his posterity respectable enough to blow froth from the cream-puffs of platitude.

It was a wise old man who wrote the following lines, but unfortunately the injunction has been disobeyed:

I call to the world to distrust the accounts of my friends, but listen to my enemies, as I myself do;
I charge you, forever reject those who would expound me, for I cannot expound myself;
I charge that there be no theory or school founded out of me;
I charge you to leave all free, as I have left all free.

How vast and wonderful was the mind of Aristotle, so limitless and immortal; but as soon as his teachings were enthroned as the final authority from which there could be no appeal, the great Stagirite became a wound on the breast of science which needed excision.

Galen (A. D. 130–200) had done mighty work for science, there is no name greater than his, but his influence became positively harmful as soon as men exchanged their senses for the *ipse dixit* of the physician of Pergamus. Galen had corrected the errors of his eminent predecessors—amidst insult and abuse—but in due time he himself was turned into a veritable oracle, a god who disputed must not be, and when, after many centuries, Vesalius (1514–1564), in his turn, with all reverence, pointed out the mistakes in the Galenian system, he made bitter enemies who struck him with stinging words.

When the medieval grammarians argued technical phases of their science, instead of using elegant language, they cursed, "May God confound thee for thy theory of irregular verbs," and now the Galenist Jacob Sylvius—a scientist of enviable attainments—denounced Vesalius as an impious madman whose breath poisoned Europe.

Vesalius Struggles Against Galenic Tradition

The life of Vesalius was a struggle against the hypnotic effects of Galen's authority. If Galen had said that a kidney is larger

than the liver, men would have believed it. For example, Galen had written that our thigh-bones are curved. Now, when even a cursory examination revealed the fact that the thigh-bones are perfectly straight, Sylvius still asserted that they were curved in a state of nature, and that their straightness was due to the narrow trousers which men wore. Galen also said that there is a connection between the two ventricles, and thereafter every anatomist who examined the heart saw the hole. Then Vesalius looked, and said, "I don't see it." And he didn't—it isn't there!

Therefore does George Henry Lewes write, "The first man who had sufficient strength of mind to use his eyes and say what he saw, was Vesalius, the father of modern anatomy."

Says Prof. W. Turner of the University of Edinburg: "The anatomy of the sixteenth century was distinguished by two circumstances unfavorable to the advancement of the science—extravagant admiration of antiquity, with excessive confidence in the writings of Galen, and the general practice of dissecting principally the bodies of the lower animals. Both these errors were much amended, if not entirely removed by the exertions of Vesalius, whose appearance forms a conspicuous era in the history of anatomy."

The learned Dr. Baas, in his "Grundiss der Geschichte der Medicin," sums up the situation in a valuable passage: "Almost everywhere Vesalius placed himself in express opposition to Galen. Thus he denied the existence of the os intermaxillare in adults, and the composition of the inferior maxilla of two bones. In like manner he reduced Galen's seven bones of the sternum to three, and gave to the sacrum (and coccyx) five or six pieces, instead of the three of Galen. In opposition to the latter Vesalius also established the existence of marrow in the bones of the hand, and refuted his assumption of an imputrescible bone of the heart, as well as his assertion of the strong curvature of the bones of the upper arm and the thigh. He maintained that nerves and muscles stood in no relation of proportionate strength to each other, for stout nerves were distributed to small muscles, and conversely; that the tendons were similar in constitution to the ligaments and not to the muscles, that the latter were in some respects independent. Vesalius denied the existence of a general muscle of the skin, proved that the intercostal muscles merely separated the ribs from each other, without either expanding or contracting the thorax; discarded the origin of the vena cava inferior from the liver, the assumption of cotyledons in the human female, the separation of the bones of the symphysis during parturition—all in opposition to Galen."

Vesalius's Great Work for Anatomy

Let me quote once more the words of another man who will grudge a paragraph from the illustrious Haeckel? "Vesalius and his pupils advanced the knowledge of our bodily structure so much by their own thorough exertions that little remained for their numerous followers to do, with regard for the more obvious phenomena, except the substantiation of details. Andreas Vesalius, as courageous as he was talented and indefatigable, was the pioneer of the movement; he completed in his twenty-eighth year (1543) that great and systematic work, 'De Humani Corporis Fabrica;' he gave to the whole of human anatomy a new and independent scope and a more solid foundation."

Vesalius certainly deserves immense credit for exposing the errors of the Galenian system, and this is no reflection on the great Claudius Galenus. Theologians may possibly be infallible, but scientists do make mistakes. Therefore, to displace an out-of-date authority is an excellent piece of work. In medicine and the allied sciences there should be guides, not despots; teachers, not tyrants. No man who ever lived has done so much for science as Darwin, but if his followers should say, "Everything that Darwin wrote is absolutely correct, he can neither be doubted at all, nor in any way improved upon," then even Darwin would become a hindrance to progress.

The great thing is, to leave all free! Let priests have their popes and bulls and dogmas, but give us the Open Road!

At the age of twenty-one Vesalius was asked to demonstrate at the University of Padua; at twenty-three he became a professor; at twenty-five he contemplated the writing of a new system of anatomical instruction; at twenty-eight he completed the vast undertaking.

Some of His Great Discoveries

The researches of Vesalius on the vascular system were of extreme importance and resulted in—and in some respects anticipated—Harvey's discovery of the circulation of the blood. Among his other descriptions and discoveries may be mentioned a fuller account of the anatomy of the brain than had yet appeared; the first satisfactory description of the medical student's terror, the sphenoid bone; the discovery of the canal which passes in the fetus between the umbilical vein and the vena cava. He showed that the sternum consists of three parts, and the sacrum of five or six. He was the first who described the omentum and its connection with the stomach, spleen and colon; the ductus venosus, the course of the vena azygos and subclavian vein, the absence of the "rete mirabile" in the brain, the five cerebral ventricles, and the non-glandular character of the caruncles. He likewise described accurately the mediastinum and pleura, the tensor tympani muscle, the labyrinth, the vestibule of the ear and the long process of the malleus, the fornix and septum, and he was the first whose views on the pylorus have been found correct.

Yet it is not so much for this that we honor him. Another could have informed us that the sternum consists of manubrium, gladiolus and ensiform appendix, and that on the front of the superior surface of the sphenoid bone is the ethmoidal spine, but who else could have founded the science of modern anatomy with such enthusiasm ?

After an obscure illness, a nobleman had died, whereupon Vesalius, who at that time was court physician to Philip II of Spain, decided to perform an autopsy, to determine, if possible, the disease which carried off this grandee. With his skilled hand he opened the chest . . . but then Vesalius saw, and all present saw, what they had not thought of seeing—a beating heart! The breezes carried the unpleasant news, the enemies of Vesalius accused him of murder, and the Inquisition sentenced the great anatomist to death. (According to a less-known story, Vesalius was thus condemned because while dissecting the mistress of a priest he discovered unmistakable evidence that Christ's bachelor had not kept his vows as to chastity.) But the powerful Philip interceded for him, and as the merciless monarch was a favorite of the merciless institution, the punishment of Vesalius was commuted to a pilgrimage to Jerusalem. And to escape the fires of the Inquisition, Vesalius sailed, in the year 1564, over the waters to Cyprus.

After he reached Jerusalem, he received a message from the Venetian senate informing him of the death of his friend and pupil, Fallopius, and inviting him to again fill the Paduan professorship thus made vacant. So Vesalius left the palm-trees of Cyprus and sailed to the Ionian Sea. . . The winds blew, the billows rolled like mad things, an infuriated storm broke forth, and under the blue Italian sky, on the beautiful Isle of Zante, whose laurels and myrtles have been sung by old Homer and Virgil, Vesalius was wrecked and died, with the vultures hovering around his body.

Such was the miserable end of this remarkable man, and our only consolation is the remembrance that neither the irony of fate, nor the smoke of the Inquisition, nor the calumnies of enemies, nor the hatred of priests, nor the bigotry of a theologic age, nor the winds of heaven, nor the waters of the Ionian seas, can ever wipe out the everlasting grandeur of the immortal life-work of Andreas Vesalius.

The Broader Field

Get out of the "calf track"! Our profession is not necessarily narrow and "hide-bound"; it offers unsuspected largeness of opportunity to those who are broad enough to learn and strong enough to grasp. "Go in and win!"

By H. C. KIBBIE, M. D., Bunker Hill, Illinois

I WANT to say a word to my brother who feels the practice of medicine to be a narrow vocation, a monotonous grind.

If this is your view, it is because of the narrow range of your mental vision.

Your gray matter is covered with mold.

The moss is on your back because you have permitted yourself to look upon the practice as only a more or less disgusting matter of "pills and potions, potions and pills."

You started originally in the best path at that time traveled, and if it has become a rut, you alone are responsible.

If you are in a rut today, it is because you have failed to keep step with the march of advancement.

You have failed to recognize the wonderful growth of medical science, and the grandeur, breadth, and beauty of the medical field, even while traveling through it.

You have apathetically glued your eyes to the narrow "calf track" your preceptors pointed out, and have plodded slowly, steadily, stoically on, oblivious to the changes taking place about you.

You have refused to look upward and outward upon the broad and fertile valleys of progress, and from this failure to measure up to your opportunities you are now suffering.

You should awake and cast your eyes round about.

Notice! The old nauseous and disgusting "pills and potions" are gone, and in their place has come the elegant and potent granule of pure alkaloid, and with these, a neater, easier practice, and greater certainty in results.

See how medical practice has broadened! It embraces all the elements of nature and employs physiological methods a few years ago unthought of.

All the light which natural science has shed upon the world is being applied to the practice of medicine today.

I want to call you to a wider outlook and to a wholesome spirit of tolerance, if, indeed, your horizon is limited by apathy, prejudice or bigotry.

I want to urge you to an investigation of the many fields of thought now being cultivated and made applicable to the treatment of disease.

Alkaloids—New Weapons of Therapeutic Precision

In this endeavor, I shall call your attention to the use of the alkaloids, the new weapons of therapeutic precision; to investigations I have made of other systems of practice; and shall take you into the new and extensive field of physiotherapeutics, indicating to you those things which I have found of value, whether used independently or as adjuncts to the ordinary methods of treatment.

Because I find good in things other than drugs you may conclude that I am a medical nihilist.

To disabuse your mind of this idea at once, allow me to say that I do not question the curative power of drugs Long years of practice have convinced me of their efficacy. These years have also taught me that simplicity and directness is requisite in their use if one would reach the acme of success.

Ordinarily the drugs most successfully employed are those physiologically adapted to and having a special selective or affinitive action upon the tissues or organs diseased.

Therefore, an accurate knowledge of the action of drugs is essential to their discriminative selection.

Simplicity is conducive to accuracy, consequently the more simple, direct, and specific the medicament, the better the results.

A knowledge of physiology and pathology is necessary in order to determine the requirements of the case and aid and direct the choice of a therapeutic agent.

To an accurate and scientific method of prescribing, the alkaloidal granules are especially adapted. Absolute purity of drug and using the smallest possible quantity necessary to secure results makes their administration simple, safe, and satisfactory.

I deprecate the use of the compound tablets now so generally employed. Their several constituents cannot be varied to suit the changing demands of cases, and I fear they conduce to careless prescribing.

Compound Tablets

Once when called in consultation, my brother practician, to the question "What are you giving her?" replied: "Pneumonia tablets." "But what do they contain?" I asked. "Dam'f'i know," he responded. And as utterly absurd as it may appear, he actually did not know. For a named disease he was prescribing an unknown compound because of its similarity of name.

This was "*similia similibus*" with a vengeance.

Of course, in the ranks of the medical profession he was an exception. Slovenliness, such as this, is but little removed from criminality, and no conscientious trained physician would be guilty of it.

Yet, I think it probable that the handy, or "hand-me-down", combinations, tend, to some extent, to render us less careful in the analytical choice of remedies than we otherwise should be.

It is far better for one to make his own compounds.

Use the alkaloidal granules and combine them with brains. I assure you, they are equally as convenient as tablets and results are better.

In the ranks of the medical profession there is too much of an inclination to be ultraconservative.

We clip the wings of our intellect, and sit moon-eyed in the presence of our "authorities."

To the "bigwigs" of the profession, the compilers of ponderous textbooks—some of whom wouldn't know a dicrotic pulse from a case of borborygmus, and have a better knowledge of golf than they have of "the real thing" in medical practice—we are ready to bow down in the dust.

We become bigoted and intolerant, and outside of our own household "there is none good; no, not one."

We have all been there some time in our professional lives, and if not grown out of it we are there yet.

Don't, I beg of you, be a medical bigot.

Medical bigotry is as bad as religious intolerance.

The fact is, an unprejudiced examination will usually discover some atom of sense and value in almost every advocated theory.

It is the part of wisdom and justice to investigate before condemning.

Study Eclecticism and Homeopathy

I used to turn up my nose at the word "eclectic," till I read Scudder's "Specific Medication" and got a carload of practical ideas out of it.

I used to smile in supercilious self-complacency at a homeopath's infinitesimal doses.

Let me tell you what made that smile "come off."

I suffered from a diarrhea which routed me out of bed regularly every morning but bothered me at no other time.

I rang the changes on all the ordinary diarrhea remedies and many extraordinary as well, but nothing gave me any permanent relief.

This continued for two years, and the thing got monotonous.

I was fundamentally tired, and a good deal discouraged.

Glancing through a little "Handbook of Homeopathy," I found, under the symptomatology of aloes, the following: "Sudden, urgent diarrhea early in the morning."

I knew aloes to have an affinitive action upon the rectum.

It's homeopathic applicancy to my condition struck me.

With no anticipations of success, I concluded, however, to try it.

I had none of the homeopathic infinitesimal triturations recommended, but I had some alkaloidal granules of aloes, one-twelfth grain. I dropped a dozen into a teacup full of water and took a teaspoonful three times a day.

"Doesn't this jar you?" In three days I was well. That was five years ago and I have never had a touch of the trouble since.

Honest now! What cured me? Figure it out. One grain of aloes to four ounces of water and three doses a day. Truly an infinitesimal amount, but it did the work.

The result jarred some of the bigotry out of me, and I am thankful I have the stamina to tell the truth about it, if it shames some devils of prejudice blocking the way of progress.

I am willing to acknowledge that there is something in homeopathy, and that prescribing according to its theory sometimes works.

It is worthy of honest investigation, and if you do as I did, get a copy of Clark's "A, B, C Manual of Homeopathy" and read it, you will be surprised how closely, in practice, their drug selections correspond to ours. And if you are hide-bound from prejudice, your mental integument will hang in folds like the skin of a rhino by the time you have finished the book.

I have got good out of the Nazareth of homeopathy and am willing to say so.

In many obscure cases, especially of children, when at loss what to do, I have prescribed on the homeopathic indications and "made good."

I don't use homeopathic tinctures or triturations. Dynamization and trituration are not, as many think they are, the distinguishing features of homeopathy.

I use alkaloidal granules, as in the instance related, and I can in this way make my doses as infinitesimal as I may deem desirable.

That I have, at times, been disappointed in results I have never attributed to the impotency of the granules or the manner of their use.

That prescribing according to the homeopathic theory can be satisfactorily accomplished, using the granules, I have conclusively proven, and I have often been no less surprised than gratified at the results obtained by their use in this manner.

Don't Scoff too Much at Osteopathy

You have thrown up your hands in horrified protest at "osteopathy." So have I.

I grant you that even the name is absurd, but it is little less absurd than the "bone adjusting" theory of Dr. Sill, the founder of the cult.

Absurd, however, as it may appear to us. there are libraries of books devoted to the subject, monumental volumes that would make our textbook authors turn pale with envy.

Curiosity has led me to wade through some of them, and as usual I have found a grain of wheat in an ocean of chaff.

The wheat consists of the fact that we can, at will, stimulate or inhibit the functioning of organs by manipulating, at their origin, the nerves that supply these organs.

This is not, as it is claimed, a new discovery. The fact was well known before Sill got into the lime-light.

The value of the fact, however, and the extent to which it is applicable in the treatment of disease was never demonstrated till Sill advocated its use in every case.

The great number of osteopathic practicians and their apparent success, pecuniarily at least, indicates that they have something of value to the public; something of good in their practice.

They have! Massage applied directly to nerve-centers, to affect the organs supplied by these nerves, is practical and valuable.

To what extent it is valuable can only be determined by individual experience.

It is not, as the osteopaths claim, valuable in every case of disease. In acute cases it is of little, if any, use. In chronic troubles it is a most valuable adjunct to other treatment, and regular physicians should make

use of it, and by so doing hoist the osteopaths by their own petard.

A knowledge of the origin and distribution of nerves, such as is possessed by every intelligent physician, is all that is required. Common sense will indicate to you the character of the stroke to be employed, and the requirements of the case tell you whether to inhibit by pressure or stimulate by massage.

I do not practise osteopathy, but I do use massage. Intelligent massage I use; and I apply it to the nerve-centers for the purpose of affecting the organs those nerve-centers supply.

My results are every whit as good as those achieved by practicians who employ virtually the same method under the distinctive, but false, misleading, and absurd designation "osteopathy."

I have never found any luxated vertebræ such as osteopaths are constantly discovering. When I do, I shall put them in place if possible, but such act will not demand that I call myself an "osteopath," as any other physician or surgeon under like circumstances would do the same.

Suggestion and Hypnotism

What there is in "suggestion" and "hypnotism" I am unable to say from experience, but much is claimed for it by those who are proficient in its use. I have no doubt that there is a certain class of patients who are amenable to suggestive methods and may be benefited in this way. The subject is worthy, at least, of careful study and investigation.

Hyperemia, by heated air, as advocated by Prof. August Bier of the University of Bonn, I have found to be of decided value in the treatment of chronic joint affections. The Betz apparatus is the only one with which I am experienced. The action of heat applied in this manner is bactericidal, absorptive and solvent. Its greatest value in is arthritic conditions. Stiffened joints, as a result of chronic rheumatism, usually yield readily to this treatment. In these cases I have found nothing to equal it. No one is satisfactorily equipped for the treatment of rheumatism affecting the joints who cannot give to his patients the benefit of the heated-air treatment.

As heat is valuable, so is cold when indicated. A short cold application preceding the use of heat intensifies the effect of the heat. There is danger, however, in the continued employment of ice. Long-continued cold depresses the vital forces to a dangerous degree and is never allowable except when a heat-retaining material is employed to cover the application, when, as reaction takes place, it ceases to be a cold application and becomes a moist-pack. This is a valuable treatment in acute inflammatory conditions affecting the throat and some other organs. The value of cold in the treatment of fevers is well known to all of us. Personally, in ordinary fevers, I prefer cold sponging to the cold bath, though there are cases to which the cold bath is best adapted. Even in fevers employment of cold should be made with care, and good judgment in its use should be exercised.

Vibration

All matter exists through vibration. All organic functions, as well as sound, light and electricity, are simply vibrations. Nervous energy is itself a vibration, and without vibration there is no life. When one stops to consider these facts he is not surprised at the popularity which has attended the use of mechanical vibration of the muscular and nervous structures in the treatment of disease.

There are many different forms of vibratory apparatus. In choosing an instrument, select one which in the direction and power of the stroke can be varied at will, and one that does not convey its movement to the hand of the operator.

Probably the greatest advantage to be derived from the use of a vibrator is in stimulating the spinal nerve-centers and thus producing peripheral effect upon the organs supplied by these centers. This is a mechanical adaptation of the theory to which the osteopaths lay claim.

The proper use of the vibrator demands the same knowledge of the location of the nerve-centers and the distribution of their

branches as is required in scientific massage. The vibrator is by no means applicable to all classes of diseases, but when used with judgment and discretion and with proper anatomical knowledge and a clear understanding of what you intend to affect, it becomes a most valuable auxiliary in the treatment of a great number of conditions difficult of being efficaciously reached in any other manner.

Light-Therapy

The use of light in the treatment of disease is almost in its infancy, but there is no subject better worth your study. Light is the universal disinfectant. Its germ-killing power has been conclusively proven by experiments unnumbered.

We have heat-rays, light-rays, and chemical rays. The chemical, or actinic, rays are invisible. They are especially important from a therapeutic standpoint. They are the enginery of metabolism and change, and they play a most important part in all the processes of life. They not only cause the death of pathogenic germs, but they have a strong affinity for oxygen, which stimulates cell growth and is directly nutritional in its action. All the functions of life, circulation, respiration, metabolism, secretion and excretion, may be stimulated and normal equilibrium restored by light-therapy.

There are many forms of therapeutic lamps employed. My only experience is with the leucodescent. It affords radiant heat-rays, luminous rays and the blue-violet rays.

I find for it so many uses and the results are so satisfactory that it is difficult to determine the cases in which it serves me best. It is antipurulent, absorbent, discutient, stimulant and counterirritant. I have found it valuable in the treatment of tubercular glands, in septicemia, in unhealthy wounds, in many skin diseases, and in sciatica and other painful affections; for all-round office use there is nothing that can surpass it. So satisfactory is its use that one is forced to guard himself from becoming a fanatic on the subject and employing the therapeutic light for all conditions indiscriminately.

The "Light-Cabinet" is a very valuable agent in many cases. By its use we are enabled to dilate the cutaneous vessels and induce perspiration most readily and vigorously. In this respect it is only equaled by the hot-air apparatus, but over this it has a decided advantage in that it produces less discomfort to the patient, the application of light being exceedingly agreeable. Its use is indicated in all cases where the hot-air apparatus can be employed, but there are a few cases in which the use of "heated air" will give better results. The light-cabinet will induce profuse sweating without the intense heat that the hot-air treatment demands. For thermic use the incandescent is the light to be employed.

There is much evidence favoring the use of colored lights to produce particular effects, but with these I have had little experience. In Bright's disease the light-cabinet, used in connection with static insulation, has given me most satisfactory results.

Faradic-Galvanic Electricity

This is a form ol electricity which every physician should understand and employ. I wish to say, and repeat with emphasis, no physician can do justice to a large class of most interesting and important cases without using electricity in some of its forms. Without the galvanic wall-plate or cabinet no office is reasonably well equipped. With the galvanic current many constitutional diseases, among which we might name rheumatism, paralysis, neurasthenia, etc., can be treated with the greatest satisfaction. With a galvanic current we are able, by phoresis, to convey medicinal substances directly into diseased tissues. Tumors, tubercular glands, goiter, etc., are treated and cured in this way.

The faradic current, although of less value than the galvanic, has its uses. It is a tonic—a true tonic—in that its action enhances metabolism of muscular tissues, thus improving their nutrition and tone. Through improving the circulation it regenerates and improves the blood supply and thus becomes of decided value in neuralgic conditions. The great number of cases of

a chronic character—the kind which usually appear for office treatment—which can be successfully handled by one or the other of these currents will prove a revelation to those who have had no experience in this line of practice.

Static Electricity

Those possessed of a static machine will find abundant opportunities for its use. Static insulation is a wonderful tonic and sedative. The Morton wave current increases the physiological resistance of the part to which it is applied and removes passive congestions with certainty.

Static electricity, by increasing nutrition, relieves pain. It is one of the best eliminators of effete products. As an equalizer of the circulation it is the most efficient of all. The current is best used in those cases characterized by a lowered tone of the system. It is especially valuable in venous congestion and in nervous and chronic inflammatory conditions.

With the x-ray tube and a fluoroscope very satisfactory examinations of anatomical structures can be made, and no trouble is experienced in generating x-rays for therapeutic use, but all radiographic work should be left to experts. The x-rays are especially valuable in lupus and skin cancers as well as in many other forms of skin disease.

I have indicated something of the breadth and scope of the medical field today, but in reality I have scarcely entered upon its broad domain. Surely its lines of thought are sufficiently varied and interesting.

No pent-up Utica confines our powers. The boundless fields of science are open to us. They are gemmed with pearls and glorious with flowers. There is no excuse for ennui; no excuse for sticking in "ruts" or confining ourselves to narrow "calf tracks." Let us avoid them and take to the open fields, and life, even the life of a medical practician will be found well worth the living.

Recent Research in the Physiology of the Alimentary Canal

Our ideas concerning the digestive and other functions of this portion of the body are being revised and revolutionized, through the fascinating labors of a busy little group of investigators. Their work has great practical value to every physician—to you

By ROBERT H. LAFFERTY, M. D., Charlotte, North Carolina
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THE recent announcement of the discovery by Zeulzer of Berlin of a new hormone that excites peristaltic action in the intestines incited me to give a little study to this subject and to search for some practical application.

Some little time ago, Bayliss and Starling, the English physiologists, added much to the knowledge of interdependence of organs by showing that it was not by the nerves alone that the function was connected, but that there were special chemical products that exerted some regulative action. These substances, called by them hormones (*hormao*, I excite), are produced by an organ at the beginning of its action and are carried to the other organs by the blood, thus securing a proper synchronism of action. The idea was not original, since the internal secretions may be considered as examples of the same thing, with the notable exception that they are secreted continuously while the hormones are formed and discharged into the blood only when needed.

The physiologist has dreamed of the day when many of these hormones will be isolated and various pathological conditions will be treated by introducing directly into the blood these interesting substances.

Secretin, the Duodenal Hormone

As yet, however, only a few of the hormones have been discovered. Bayliss and Starling found one in the mucosa of the duodenum, which they named secretin and which when injected into the blood stimulated the flow of pancreatic juice. They found they could produce the well-known changes of pregnancy in the mammary gland of virgin rabbits by injecting into their blood extracts of young fetuses, and Zeulzer with his peristaltic hormone about completed the list—although Bayliss and Starling and many other physiologists have strong reasons to believe that many other such are formed, for example one in the mucous membrane of the mouth regulating the flow of saliva and also starting the gastric juice, one in the stomach which stimulates the pancreatic and intestinal juices, and certain others that cause the regulation of various physiologic functions.

I may mention here that all the experimental physiologists, notably Popielsky, do not accept this theory, still contending that the action is solely reflex.

However, accepting the fact, as most physiologists do, does it not open a wide field for speculation and experiment in the field of therapy for gastrointestinal disorders? And the pertinent question has been asked: If cretinism can be cured by injection of the extract of the thyroid gland, could not certain types of gastric and intestinal indigestion be cured by the injection of the proper hormone or constipation be relieved by the injection of certain other hormones? I leave the subject with the bare suggestion to pass to a study of the mechanics of the digestive canal and certain applications of recent research.

Pawlow and his "Appetite-Juice"

Mastication, in addition to softening and mixing the food with saliva, has the most important function of stimulating the "appetite-juice," as Pawlow has named the gastric secretion. Pawlow found, after eliminating psychic secretion, certain foods, for example extracts and meat juices, when placed in the mouth or the stomach caused a secretion of this gastric juice. Certain other foods, as bread of white of eggs, did not have this effect but that stimulation of the juice when this class of foods was taken was practically entirely psychical.

Following innumerable experiments he gives the following practical suggestions, most of which are known:

First, for stimulating the "appetite-juice" and consequently the digestion, that pleasant surrounding, palatable foods and certain sapid substances play an important part.

Second, that in the beginning of a meal soup and such like extractives have an important function in starting the gastric secretion.

Third, that in administering bitters for producing an appetite they should always be given in liquids so they will reach a greater surface of the mucous membrane of the mouth, since here the stimulus arises.

In regard to the recent research into the physiology of the stomach the chief work is that done by Cannon on the mechanics of this organ. His work showed that there is, in addition to the tonic action of the muscular wall of the stomach, a regular wave that passes through the pyloric portion of the stomach at intervals of about twenty seconds, growing more powerful as it advances, and the tonic action of the wall with an occasional weak wave carries the food from the fundus when the chyme has been discharged.

Cannon demonstrated that this pyloric peristalsis has two effects, namely:

The Effects of Pyloric Peristalsis

First, that it keeps the food churned up as long as the pylorus is closed, causing it to become more fluid, more strongly acid and better mixed with the enzymes.

Second, that it forces the digested food through the pylorus whenever it opens and

that the peristaltic wave becomes deeper and stronger as it approaches the pyloric opening. The increased pressure, combined with the stimulating action of the strongly acid chyme on gastric side and slightly acid or alkaline chyme on duodenal side, causes a relaxation of the pylorus and the food is passed into the duodenum.

In a splendid paper about a year ago Dr. Cannon shows that this is nothing more nor less than an application of Starling's "law of intestines," that when a stimulus is applied to a point it causes a contraction behind the point and a relaxation before, so when the acid chyme, forced against the pylorus by the wave, comes in contact with the pylorus the relaxation takes place before the point of stimulation and the contraction behind become stronger; when, however, the acid chyme reaches the other side of the pylorus the contraction is produced in the valve and the relaxation further down in the intestine. As soon, however, as the acidity is neutralized in the duodenum the inhibition is removed from the valve and the acid chyme is again allowed to act. If then the hydrochloric acid is present in small quantities or entirely absent from the stomach the expulsion of food would be delayed or at any rate noticeably lessened.

He further showed that any injury to the gut causes a cessation of the discharge of chyle for about five hours so that the food cannot reach the injured gut, a wonderful provision of nature, for it has been shown by Abbé that at the end of four hours after the repair of an injury to the gut the wound is covered, a plastic exudate making a light joint.

Following these observations, and further in consideration of the fact that the specific gravity of the digested food is very nearly the same as that of the stomach, that the stomach in different conditions changes shape and thus makes it impossible to determine the lowest point, Dr. Cannon made the practical assertions that the idea that in gastroenterostomy the opening should be made at the most dependent part, for the purpose of drainage, was erroneous; and he proceeded to prove it by a series of brilliant experiments, with the following conclusions derived therefrom:

There Is No Such Thing as a "Drainage Gastroenterostomy"

That when a gastroenterostomy has been made the food continues to escape through the pylorus even when its size is reduced; that there is no such thing as a drainage gastroenterostomy; that the stomach may empty through the artificial opening when there is complete obstruction at the polyrus; that the nearer the opening is made to the pylorus the better and the more natural is the discharge of food; and, finally, that the physiological operation, whenever possible, is pyloroplasty, since the rhythmic segmentation will take the place of the pyloric valve when the latter is cut out.

Another important fact demonstrated by Cannon was the influence of the chemical nature of the food on the rate of discharge from the stomach. Of the three classes, carbohydrate, protein and fat, when fed separately, the carbohydrate foods, not being acted on by the gastric juice, leave most rapidly. The fats not being acted on except in a mechanical way, leave more slowly, while the proteins remain longer. When fed together, if carbohydrates are fed first and then followed by the protein, they leave with about the same speed as when fed separately. If, however, the protein is fed first, the carbohydrate is retained, and if they are thoroughly mixed the rate of discharge is correspondingly decreased.

Movements of the Small Intestine

This brings us to the movements of the small intestine, the two forms of which have been designated as pendular and peristaltic.

The rhythmic, or pendular, motion occurs some seven to fourteen times per minute and has the triple function of mixing the foods and thus subjecting them to the absorbent action, of replacing the pyloric valve, as we have seen, and of a pumping mechanism upon the venous plexus. These movements are exaggerated during hunger

and the intestines seem to be searching the remaining food for nutrient material.

The previous-mentioned "law of intestine" proposed by Starling explains the peristaltic action, but whether the origin of the contraction is neurogenic through the plexus of Auerbach, or myogenic, stimulated mechanically, or through Zeulzer's hormone, has not been definitely determined. But Cannon's work along this line has practical application in intestinal surgery, since he has shown that an end-to-end junction of the intestine does not cause interruption of the peristaltic wave because the circular fibers are not cut while in lateral anastomosis there is always a stasis varying in extent with the length of the opening and with the number of circular fibers cut.

Finally, I would simply mention Dr. Cannon's observation that the movements of the stomach, segmentation of the small intestine, and the antiperistaltic movement of the large intestine ceased entirely when the animal showed signs of worry, rage or excitement, and also the observation of Bickel of Berlin that there was a cessation of gastric secretion under similar conditions.

By way of brief summary I would say that I tried to show:

1. The work done in the discovery of the hormones and their actions and the possible application of these in treatment of pathological conditions.

2. The importance of mastication, not only from the well-known and recognized point of view, namely its softening and digestive action, but also on account of its stimulation of secretions to be used later in digestion.

3. The mechanical importance of the gastric acidity and gastric motility in the expulsion of food from the stomach and the fact that pyloroplasty is more physiological than gastroenterostomy, and in gastroenterostomy the opening should be made as near the pylorus as possible.

4. That the end-to-end operation for intestinal anastomosis is by far the most physiological of the types of intestinal union.

5. That in the application of dietetic measures the administering under pleasant surroundings of palatable extractives in a liquid form starts the gastric juice, and that if this is followed by carbohydrates before the protein the stomach empties more rapidly and gives a better opportunity for digesting the proteids.

Digestive Disorders and Digestants

You want to be able to treat the diseases of this class successfully, without resort to the difficult diagnostic and therapeutic technic of the specialist. Here are simple, common-sense suggestions for your help

By GEORGE H. CANDLER, M. D., Chicago, Illinois

AT first thought it would seem preposterous to attempt to present in an article of this brief character any new or important ideas upon a subject which already has an extensive literature of its own. Moreover the scientists tell us that our idea of the normal digestive process is at best hazy, and "literary clinicians"—if I may coin a very descriptive term—impress upon us, in lengthy articles bristling with chemical terms, the idiocy of attempting to treat digestive disorders without the administration of test-meals, examination of stomach-contents, estimation of acids, motor activity of the stomach, etc. All of which we must admit to be true, *and yet*, unhappily, the exigencies of *practice* (the kind of practice which requires a man to treat daily forty to fifty people, scattered over ten or twelve miles of country, and to give relief without making *too* much fuss about it—to say nothing of expense!) compels the every-day

doctor to recognize a plain case of "dyspepsia" when he sees it and to dispense (or prescribe) there and then an appropriate remedy.

The patient does not particularly care whether his disorder be a plain hyperchlorhydria or the rarer gastrosuccorrhea. He does know that an hour or so after food he is extremely uncomfortable—sometimes suffers agonizing pain, and he has discovered that a dose of baking soda gives some relief.

Just these facts are at the doctor's disposal; his diagnosis must be perfected by a glance at the patient's tongue and the knowledge that vomiting of yellow, intensely acid fluid does not occur. Dilation of the stomach, with its sour, fermented vomitus—ejected often hours after eating—may usually be excluded; though it is safer, as a rule, to make a partial examination of the abdominal area at least. The patient is, let us say, a country merchant, living well and leading a somewhat sedentary life. He is nervous, inclined to worry, and as he gets nearer the meridian of life his "dyspepsy" gets just sufficiently troublesome to lead him to ask the doctor for "something to fix up that stomach of mine."

Nine times out of ten, where the physician, at this stage and with such a patient, even to suggest the desirability of a thorough physical examination, the ingestion of a Boas test-meal with its subsequent withdrawal and analysis, he would meet with a decided refusal and the victim of gastric disorder would wonder "what on earth had gotten into Doctor Smith to lead him to make such a fuss about nothing?"

Later, when doctor after doctor has prescribed "off hand," ineffectively; when druggists' "sure-cures" and advertised dopes have alike failed to bring relief, *then*—and then only—will this same man submit to examinations—general and local, external and internal; with the naked hand and sinuous, electrically lighted instruments; fasting cheerfully to order and ingesting and ejecting his roll and weak tea with sublime resignation. By this time, naturally, as may have been already surmised, the one-time "dyspeptic" has matured into "a victim of an intractible gastric disease" and, as "Case No. 1796," is adding materially to the bank roll of Dr. Digestem, the eminent "stomachist."

Learn to Know the Disease—and How to Cure It

All of which should teach us (i. e., ordinary, everyday practicians) to familiarize ourselves with the "outward and visible signs" of the various digestive disorders and to learn to prescribe therefor the indicated remedies in effective, repeated dose *to effect*. It will *not* do for us to accept John Doe's statement that he "has nervous dyspepsia" and prescribe therefor Brown's or Smith's "Omi-Digestant"—or even some highly ethical (even official) preparation recommended by eminent writers as being of "great value in malassimilation of nervous type."

If we are to earn our fee, cure the patient and *keep* his confidence we must do the diagnosing ourselves, and having made the diagnosis, must know how to prescribe really effective remedial agents. If we would only look the truth boldly in the face and learn to "see ourselves as others see us" we should know that our unsatisfactory incomes are in a great measure due to our unsatisfactory work and that no one works quite so hard to insure the success of the "city specialist" as the general practician himself.

One manufacturer of a tablet containing carica papaya, soda, charcoal, etc., advertises boldly the fact that he makes and sells *to the profession* several million such tablets per annum! Evidently there must be a large number of doctors prescribing this combination for any and all sorts of "indigestion," or some few practicians must be treating, night and day, thousands of patients suffering from hyperchlorhydria.

Moreover, this gentleman, with others of his ilk, earnestly urges the doctor to safeguard his (no, *not* the doctors—the manufacturers!) interests and prescribe or dispense "original packages only." If the doctor *does* so far forget his supposed scientific standing as to comply with this modest request, can he complain when, later on, the

patient ignores his pretension to superior knowledge and buys the "original package" direct?

The immortal Lincoln, were he alive and able to revise his famous axiom to fit the occasion, would doubtless say: "The doctor can fool some of the people some of the time, but most of the doctors trying to fool all the people a good part of the time fool themselves particularly badly!"

The moral is obvious!

Normal Digestion Begins at the Mouth

It might be well to call attention here to the fact that normal digestion begins in the *mouth.* Thorough mastication and insalivation of food are quite as essential as a proper secretion of hydrochloric acid—indeed, we now know that the act of mastication not alone increases the activity of the salivary glands but also stimulates (reflexly) the gastric, pancreatic and intestinal glands. Moreover, ptyalin, the diastasic enzyme present in the saliva, possesses the power of converting starch into maltose, hence the longer starchy foods are subjected to the action of teeth and saliva the more certain is its ultimate assimilation. It should be borne in mind (but unhappily it seldom is!) that this conversion of starchy matter, beginning in the mouth, is continued in the stomach under favorable conditions for not more than thirty or forty minutes. By that time gastric acidity has increased to such a point that the process is ended, to begin again only when the food-mass passes on into the intestine, there to be further acted upon by the bile and the intestinal and pancreatic ferments.

It can readily be seen that patients failing properly to masticate a considerable quantity of starchy food are prone to complain of symptoms which lead the doctor to prescribe for "intestinal indigestion." As a matter of fact "buccal inefficiency" would be a better term.

In cases of *hyperchlorhydria* the action of the salivary enzyme upon starches ceases *immediately* after the food reaches the stomach, and as an excess of hydrochloric acid causes the pylorus to remain closed for a period much longer than is normal, the retained unconverted material is liable to ferment. Distention of the stomach ensues, with further retardation of the digestive processes; and not infrequently the existence of just this condition leads to the diagnosis of "gastric dilation." A simple cleaning out of the entire digestive tract; limitation of starchy foods, and insistence upon thorough mastication and insalivation would unquestionably cause prompt contraction in nine out of ten such "gastrectases."

As a matter of fact the urgent need of the hour is not new and potent digestants but a better understanding by the physician of the digestive process and *correct* administration of the quite effective agents already at his disposal. The indiscriminate use of pepsin, pancreatin, sodium-bicarbonate and charcoal mixtures has caused infinite misery to many thousand confiding patients and a loss of therapeutic acumen and diagnostic honesty in the doctor beyond computation!

Start with a "Clean" Digestive Tract

In all cases of "indigestion" it is our business to see to it, first, that the mouth, stomach and bowel are "therapeutically clean" and free from undesirable spores and bacteria.

Then the patient should be taught that "digestion begins inside the teeth" and its efficient performance depends to a very great extent upon the thoroughness with which he grinds and insalivates his food. If incisors or molars are missing or disabled we should recommend a prompt visit to the dentist. Even if the teeth are perfect we can at least prescribe an alkaline antiseptic mouth wash to be used both prior and subsequent to meals. Only so can we hope to start *properly* the digestion of food.

The mouth, stomach and intestine "clean" and hepatic activity secured (a few divided doses of calomel or blue mass and soda, with podophyllin, followed by a saline flush, will accomplish all this) we must see to it that the patient eats lightly for a few days.

If *hypochlorhydria* or motor insufficiency has been a feature we may rationally give strychnine and capsicum, or some similar

stimulant, half an hour prior to meals and ten to fifteen minims of dilute hydrochloric acid with food. In some cases of gastric atony hydrastin and juglandin prove wonderfully effective; these may replace or be alternated with the strychnine and capsicum.

For a few days it may be desirable to exhibit some "digestive stilt" after each meal. Papayotin acts satisfactorily here—alone or in combination with other indicated remedies. Fermentative conditions will demand charcoal; extreme atony, a further dose of capsicum or black pepper. Careful observance of the patient will enable us to gauge progress and we can add agents to influence intestinal digestion or to hasten the transit of the food mass, or its ultimate waste, as may be necessary. *But*—only by correcting basal wrongs and restoring as rapidly as possible normal conditions can we hope to *cure* even such a simple disorder as this.

Hyperchlorhydria is perhaps the most frequently encountered. I have, I hope, made it evident that it is quite essential that the physician be positive which of the two conditions he has to deal with and further that he know definitely whether there exist an ulcer, cardialgia, gastroptosis, gastrodynia or what not as a complicating affection. A careful study of the more recent works upon diseases of the stomach and internal medicine will enable the practician possessed of ordinary diagnostic acumen to recognize the gross symptoms present in all varieties of "indigestion" without resorting immediately to test-meals, lavage, the gastrodiophane, etc. If ordinary rational measures fail to bring about improvement *then* it is essential that we have "resource to our art" and the test breakfast and test tube will alike prove necessary.

It is hardly to be expected that the busy doctor shall be able to make (or even know of) the more intricate and delicate reactions which the laboratory physician loves to dilate upon. He should, however, be able to make a routine examination of the gastric contents—the technic is simple and the apparatus inexpensive. If, however, such an examination is beyond him the patient should not have to suffer and the stomach contents should be forwarded to the nearest laboratory.

It may aid someone, perhaps, if I state here that hyperchlorhydria exists in at least thirty percent of patients complaining of gastric disorder. Over-work, worry, grief, the use of ice water, alcohol, highly seasoned foods and bolting the food produce the condition. Shortly after eating distress is experienced in the epigastrium. Later, this increases to a burning pain which may last two hours. Albumen relieves the pain and many victims get into the habit of swallowing a raw egg. Soda in any form causes belching and later, relief. One hour after a test-meal increase of all ferments and superabundance of hydrochloric acid will be noted. A portion of egg placed in the filtrate will be digested in from thirty to forty minutes. Three hours after a mixed dinner the stomach contents, if withdrawn, will show digested albumens but unchanged starches.

Surely the haphazard exhibition of even the best digestive tablet on the market seems like a display of ignorance when one gives even these two ordinary conditions an hour's study.

There *are* excellent digestive combinations at the disposal of the doctor (he should, however, eternally fight shy of the cheap "original-package" dopes) but, even as "the punishment should fit the crime," so the *formula* must suit the *conditions* present in the individual.

The afflicted individual cannot know what those conditions are: the physician claims, by the act of hanging out his shingle, that *he can* make a correct diagnosis and, after having made it, administer the indicated remedy. That is what he charges the patient for—his *skill*, not the drugs he gives.

The man who treats all his "dyspeptics" with the same tablet, or an assortment of two or three tablets, does not "exercise reasonable skill" and, sooner or later, the people will find him out and go straight to the fellow who "diagnosis closely and recognizing underlying pathological conditions, corrects them by exhibiting the right remedies to effect."

Verb sap!

My Experience With Fletcherism

Would you like to know how the quantity of food necessary for health can be reduced by half, and how, in so doing, your digestion can be made more perfect, your nutrition improved and the liability to disease reduced? Then investigate Fletcherism!

By E. F. ROBINSON, M. D., Auburndale, Massachusetts

IT is the habit of the medical profession to ignore practically all novel ideas in diet or the treatment of disease, especially if these are introduced by laymen. This is a mistake, because probably no innovation of this kind is without its good points. There is nothing that the average individual desires so much as health and, very naturally, most of us are willing and even anxious to try anything that promises to be a help. Doctors, having very foolishly adopted the policy of silence have, by so doing, robbed themselves not only of one of the most powerful weapons against disease but have made possible the existence and prosperity of the quack, who does not believe in silence. The present time is the era of publicity, of printer's ink, and the public believes that the man who has nothing to say *for* himself or *against* harmful fads can say nothing; in other words, that he tacitly endorses what is said by others,

Undoubtedly many fads do harm and those who advocate them make many nonsensical claims. There is one, however, which I believe to be not only harmless but, in the main, strictly scientific and also practicable. It was started, if not actually discovered, by a layman; nevertheless, unlike many others, nonsensical claims are not made for it. I refer to what is called Fletcherism.

Several years ago I suffered badly from autotoxemia, so badly that there seemed great danger of ataxia. Without, at that time, knowing anything of Mr. Fletcher or his ideas I reasoned out a course of action which I have since found to be practically identical with Fletcherism. I am glad to admit, however, that since reading Mr. Fletcher's books I have been able to perfect my own ideas and to get still better results.

Although Fletcherism is regarded by many, especially those who know nothing about it, as a fad, it really has very few of the earmarks of faddism, but is, in reality, plain common sense. I have often thought that we physicians had too little of this quality and too much of what we call scientific knowledge, which, in a few years, is very prone to turn out to be as much of a mistake as many of the fads we look down on. Fletcherism is very simple, based on common sense and proved by long and frequent scientific experiments, at Harvard, Yale, and various other universities.

The basic ideas are as follows:

Appetite Is the Only Guide

First, a true appetite is the only real guide to diet, either as to kind or amount. In other words, one should eat only when there is an appetite and then eat exactly what that appetite calls for, no matter what it may be, and stop the instant the appetite is satisfied. On this point it is well to remark that a real appetite and what most people call appetite, or hunger, are two entirely different things. To one who has had experience with both, knowing them apart is a very simple matter. As a matter of fact a large majority of people have never had a real appetite since they were children, hence do not know what one is. Most people, including doctors, think if they feel empty, all gone, have a headache, perhaps a little nausea, and the like, that these symptoms are a call for food.

No greater mistake could be made. This is not an appetite or hunger at all; these symptoms are due to autotoxemia and mean that you *ought not to eat*, but to clear out the

waste that is causing the trouble. A true appetite is never a pain but a pleasure. While it may call for some particular food it can, and will if necessary, satisfy itself with plain bread and water. Unless one has this kind of an appetite there is no appetite at all.

Do not misunderstand me to mean that you must eat plain bread, or any other special diet. I mean simply that the real appetite would be satisfied and grateful for bread if there was nothing else to be had. Having this kind of an appetite, satisfy it with what it calls for, if you can obtain that, if not, then the next most desirable food.

On this head it follows that the idea of any certain number of meals a day is wrong. If your appetite calls for only one meal, eat one. If it calls for six, or a dozen, eat them. Bear in mind that you must stop eating the instant the appetite is satisfied; that is, the instant that you could not relish more plain bread, for example. Do not be looking for something to tempt the appetite further. Remember, too, that a feeling of repletion or aversion to food always means over-eating, no matter if you have only eaten one mouthful; that would simply prove that you ought not to have eaten at all at that time. Fasting, for itself, is no part of Fletcherism, unless you call it fasting to wait until you have an appetite. If you have to fast a day or two to get one, why fast, that is what you need.

We Must Enjoy Our Food

The second important point in Fletcherism is the fact that to digest food properly one must appreciate it, like it, taste it, and get all possible good out of it. In order to do this we must first eat only foods that the appetite calls for, and then give attention to enjoying them.

Mr. Fletcher, like most authorities, believes in the advantage of pleasant and instructive conversation at meals. I am not at all sure that this idea is correct, in fact I am rather of the opinion that it is and always has been wrong. Granting the necessity for attention and appreciation in order to digest food properly, and this has been amply proved by experiments at Harvard on animals and in numberless experiments by human beings, it follows, I believe, that we cannot give proper attention to the appreciation of food and to eating it properly, and at the same time keep up brilliant and satisfactory conversation.

I hold that eating is the business of supplying the cells of the body with food and that in all probability it is as foolish to suppose that we can carry out this business properly and at the same time keep up conversation, as it is to suppose that we can do the same with any other business. No man is fool enough to think that he can attend properly to any other work and talk at the same time.

Consider the fact, also, that we know that for proper digestion a large quantity of blood is needed in the digestive organs. We know too that blood is needed in the brain for this pleasant and brilliant conversation. The same thing cannot be in two places at the same time; and we have no reason to believe that this blood is going to rush back and forth from the brain to the stomach and vice versa every few seconds, and do good work in both locations, simply because we happen to want it to. If these things are true it is certain that we cannot appreciate food properly and talk properly at the same time. These arguments apply with still greater force to the next point, that of eating properly.

The Importance of Mastication

The third point in Fletcherism is the proper preparation of the food for the digestive organs. We are all taught that mastication is an important part of the process of digestion, but how many of us give any attention at all to it? It is comical, of course, to call Fletcher "the chew-chew man," but, like much other comedy, it borders on idiocy. The teeth were undoubtedly made to be used. The more the food is chewed the less work there is for the other digestive organs to do.

We know that the saliva digests starch and sugar and that, given time, it will digest almost an unlimited quantity of them. Chewing mixes the food with the saliva, and

the longer the food is chewed the larger is the quantity of starch and sugar that will be digested. Experiments indicate, also, that fat is at least partly emulsified in this way. Albumen is not digested, but meats, and especially cooked meats, are certainly put into the condition in which the gastric juice can get at them and act most rapidly.

This point in Fletcherism, then, is, chew each mouthful of food until it becomes a mushy liquid before you swallow it. Do not swallow consciously at all, but remove from the mouth any part of the food you cannot reduce to this liquid state. By doing this all that you remove will be wood fiber and the indigestable part of meat. There is absolutely no reason why this should be swallowed; if it does anything at all it will do harm. It must be excreted and it is much more simple, to say nothing of safer, to remove it before swallowing, instead of after.

The Function of the Taste-Buds

The fourth point in Fletcherism, and perhaps the most original of all, is the discovery of the function of the taste-buds. We all know what these are, and their location at the back of the tongue, but it seems to have been left for Mr. Fletcher to discover their real importance. He has called this set of taste-buds nature's "food filter." He holds, and has clearly proven, that when proper attention is given to eating, these buds will not allow, willingly, any food to pass them that is not properly prepared for digestion.

We can forcibly swallow, and so get food by them, it is true, but not naturally. When food has been properly made liquid it is swallowed unconsciously, runs down without effort, so to speak. Any really conscious effort at swallowing is unnatural and forces improperly prepared food and improper food past this filter. These taste-buds not only protect the stomach from improperly prepared food but they telephone the stomach, so to speak, to be ready for it, so that gastric juice commences to flow. This too is amply proved by experiments at Harvard.

Taste and enjoyment of food is of great importance in digestion. Food that is not so appreciated is digested very slowly and imperfectly, or not at all.

Now, we eat food for two reasons, one to satisfy hunger and the other to satisfy taste. To satisfy hunger, that is, the need of the cells for more nutrition, it is evident that food must be properly digested. This is not at all necessary to satisfy the mere sense of taste. Most of us take chances with food that we are well aware we are exceedingly unlikely to digest, merely to satisfy our sense of taste. We also eat much more than we know we need, for the same reason.

If you give a child one small piece of candy he will make it last as long as possible, suck it slowly and get all the taste out of it possible. Give him plenty of the same candy, all he wants, and he will gobble it. In reality he gets exactly the same amount of taste out of one piece that he does out of many, if the time taken to consume it is the same.

Exactly the same is true with adults and with any kind of food. If the food is chewed and tasted properly before being swallowed you will satisfy the sense of taste, as well as the appetite, with usually about one-third of the amount you have been in the habit of thinking necessary. You will, in fact, get far more taste out of the small amount than you will out of the larger one, since the taste-cells will have a chance to absorb, which they do not get properly if food is bolted. Besides this you will taste foods that you have never really tasted before.

How many of you know the real taste of bread, after part of the starch has been converted partly into grape-sugar by the saliva? Probably not one in a thousand. Try it and see how good it tastes. No doctor ought to need to be told how much less work it means to the rest of the digestive organs.

The Quantity of Food Really Needed Very Small

If food is properly Fletcherized the amount needed is very small. Mr. Fletcher has lived for ten years or more on a trifle over half the amounts laid down by authorities as absolutely necessary for health, about 1600 calories (heat units) a day, instead of the 3000 supposed to be necessary. More

than this, under this amount of diet he has passed from being a life-insurance risk that no company would accept to an exceptionally good one. On this diet he has followed for a week, without previous preparation and without harm, the regular exercises of the Yale University crew, and this at the age of over 50 years.

With Fletcherism the amount of fecal matter is greatly reduced, to less than two ounces a day in Mr. Fletcher's case. More than this, the feces are absolutely without odor and will keep indefinitely without change; like the feces of a healthy dog, they simply dry up and are practically aseptic. With the bowel waste in this condition no physician needs to be told that autotoxemia is simply an impossibility. Tests have proven that his intake of food material can be so regulated as to be almost identical with the amount of cell waste; the ideal condition in other words. This leaves as waste only the regular cell waste, plus what little "digestive ash," as he calls it, happens to be unconsciously swallowed.

The only real need for food is the amount necessary to balance cell waste. Anything in excess of this must be excreted, or stored up to do future harm. The only other reason for food is the good taste it gives. It is certain, amply proved, that by Fletcherizing one can get far more taste and a sufficient quantity of much more easily digested nutriment from a far smaller amount of food than is usually eaten. After the system is cleared of the retained waste and the effects of previous autotoxemia removed, Fletcherizing prevents all further autotoxemia, and all the results that follow in its train.

Fletcherism not Vegetarianism

Mr. Fletcher is not a vegetarian, nor, I believe, even a total abstainer from alcohol. Fletcherism undoubtedly lessens the desire for meat, as well as for a large quantity of other foods, and also the desire for alcohol, and drugs like tea and coffee, spices, and the like. Simple foods give more satisfaction, but a true appetite is a real guide. Eat what it calls for.

Personally Fletcherism has taken me from the door, perhaps the anteroom, of the "down-and-out club" and put me into a condition that has been a stranger to me since I was a youth. Medical treatment has, it is true, helped, but it is the same medicine that failed for many years before these ideas of proper eating were adopted.

Try Fletcherism, Brother, and see what it will do for you, and also for your patients.

Things Useful in Intestinal Indigestion

Some of the common disorders of the intestinal tract and practical, simple and successful methods of handling them—methods that have brought favorable results during many years of practice

By WALLACE C. ABBOTT, M. D. Chicago, Illinois

OUR ancestors did well and showed their appreciation of a great truth when they denominated the intestinal tract the *primæ viæ*. It is; and we are only now beginning to realize the enormous importance of digestion and the digestive canal in the causation of disease, the preservation of health, and even, according to Metchnikoff, in the prolongation of life.

The first and strongest impression made on him who commences to study the diseases of the alimentary tract is the astounding abuse the latter withstands. We do everything we should not do, commit every gastronomic sin in the lengthy category, and the stomach comes up smiling, like Battling Nelson, and signifies its readiness to take more punishment.

But there is a limit even to the endurance of the stomach, and in time the effects of abuse must become manifest. To treat of prophylaxis here would be simply to repeat the current views on the physiology of the digestive organs, and are they not written in the textbooks?—*q. v.* The doctor who does not thumb to pieces his textbook on physiology every five years is not much of a doctor.

Chronic Diarrhea.—The fact of irritation presupposes the presence of an irritant; and the first indication is to get rid of it. There is not in the long list of alkaloids a solitary article that is better than the old-fashioned neutralizing cordial, modernized by the addition of sodium sulphocarbolate.

Here's a good formula: Sodium sulphocarbolate, grs. 60; sodium carbonate, grs. 60; tincture of hydrastis, drs. 4; wine of ipecac, drs. 2; aromatic syrup of rhubarb, enough to make 6 ounces. Adult dose, one tablespoonful every two to four hours till stools are normal. Essentially the same combination is also available in the more convenient tablet form. It's a dandy for summer digestive disorders.

If there is disturbance of the stomach, nausea, vomiting, begin with calomel, gr. 1-6, every half hour for six doses, then follow with a saline laxative.

If the large bowel is involved, wash it out with a hot colonic enema, containing 1 ounce of sodium bicarbonate to each 2 quarts of water, and 1-2 to 1 grain of zinc sulphocarbolate to the ounce. Meanwhile give emetine, a milligram every hour, stopping when nausea occurs, and resuming when this subsides.

In all cases give enough of the sulphocarbolates to keep the canal aseptic, and if there continues looseness, employ the zinc salt. Children and cachectics should have the sulphocarbolate of lime, while gastric irritation and acidity indicate the sodium salt.

Continuance of diarrhea indicates the presence of an irritant, either retained fecal concretions, foreign bodies or ulceration, tubercular or otherwise; or possibly it is simply due to relaxation and debility, general and local. If you suspect tubercular disease of the bowel, cotoin will show an efficacy nothing else displays in checking the diarrhea; and cotoin is not very effective in any other form.

Relaxation is aided by hydrastine, a milligram every two hours; slow in getting to work but quite satisfactory in the end. Astringents are rarely if ever needed, unless it is with the aged, when a little silver oxide or copper sulphate acts well. Give 1 to 5 milligrams every four hours, with a few grains of bismuth and pepsin. But I do not like metals for chronic cases and look upon giving astringents as bad practice. They are prone to lock up the causal toxins, and are deceptive by causing a temporary improvement. It is much more important to see that the normal digestive secretions are restored, and for this we have at command those exceedingly valuable remedies, rhubarb, emetine and juglandin. Give of the latter a centigram seven times a day, for a week—less if it purges.

Diet and general regimen are looked after, of course—you know about these as well as or better than I could tell you.

Flatulence.—David Harum said a few fleas are good for a dog—and some intestinal gas is good for any man. It must be secreted from the intestinal walls, and loosens the adhesive fecal masses so as to facilitate their movement along the bowel. But an excess is annoying, and sometimes the gas is formed in such volume as to cause mortification and distress. In my earlier days I was puzzled because the aromatic oils failed to relieve this condition, except, perhaps, only slightly and temporarily. Now, however, I look on the symptom as an evidence of paresis of the bowel-musculature, and give enough physostigmine to restore physiologic balance. One-fourth of a milligram three times a day, or more if needed. Increase the tone of the intestinal walls by berberine, a centigram six times a day for six weeks. Regulate diet and regimen. But how about the mortifying borborygmi in neurotic girls, that persist despite this otherwise effective treatment? Just add to the above anemonin, 1-2 milligram thrice daily, and see.

Bad breath generally is due to fecal retention and decomposition. Clear out the bowels, and disinfect them by the ever-reliable sulphocarbolates—giving dose enough, but never forgetting first really and thoroughly to clear out. If the stools are white and offensive, begin with a grain of calomel in broken doses, preferably in combination with aromatics; if dark and offensive, give 1-2 grain of podophyllin the same way. A combination of calomel, podophyllin and bile salts is excellent.

In all cases take pains to prevent the intestines becoming filled up again. How? It's a harder job than emptying them. Contract the relaxed connective tissue by berberine, 1 centigram; reinforce peristalsis by physostigmine, 1-4 milligram; incite mucous secretion by juglandin, 1 centigram; arouse sensibility along the canal by capsicin, 1 milligram; and incite all the vital functions at fault by strychnine nitrate, 1-2 milligram. Put these in a capsule and administer one such dose four to seven times a day—just as much, and not a whit more, as the need may prove. Keep this up for a month or so, lessening the dose as the habit of evacuating at the same hour each day comes to our aid, until finally no drug is needed. Again, of course, regulate the patient's diet and regimen. Make your patients chew, *chew*, CHEW!

Fat Indigestion.—Here, of course, the pancreas is at fault, and a little pancreatic extract gives temporary relief; but it does not cure—and look out for diabetes. Better limit the fat taken so as to lessen the work of the suffering organ. Give the fat-food emulsified, as in the modern pancreatic oil emulsions; for some fat is a necessity. Rest, careful attention to the toilet of the alimentary canal as well as of the rest of the body, with regulation of the regimen, in addition to the treatment of everything found to be abnormal, after the most searching investigation, may possibly result in cure of the malady.

There have not, as yet, been discovered any specific remedies for pancreatic maladies or disorders of pancreatic function. We need them. We strongly suspect that among remedies that have won favor in treating diabetes some act on the pancreas, as, for instance arsenic chloride, jambul, aspirin, (acetyl-salicylic acid), and especially some one of the, as yet, unstudied principles of opium. So good an observer as Hare testifies that crude opium gives better results than either morphine or codeine—and the inference is obvious.

Intestinal Indigestion.—Flatulence and acidity follow when the starches are not digested. Diastase gives relief, and as with the other gastrointestinal digestive principles, when we thus artificially start digestion, the process will be kept up automatically until fully accomplished. But this does not directly cure. Cut out the carbohydrates —what's the use of eating what you can not digest? Yes, madam, I mean sugar as well as potatoes—so, there! Cut out ice water and especially iced tea; also ice-cream and all other iced digestion killers. The combination of berberine, juglandin, physostigmine, capsicin and strychnine does well here.

Emaciation.—Fat folks all want to be thin; lean folks want to be fat—it's a funny world. The principles of treatment are the same with both—if you take in more than you put out you'll gain weight; and *vice versa*. No known drug increases physiologically the fixation of fat in the human body, although arsenic is claimed to possess this property.

Give quinine arsenate, a milligram every two to four hours for each alternate week, with lecithin, t. i. d., in the intervals. Tell the patient to eat candy between meals, and take one to two quarts of sour milk as "clabber" every day, in addition to the regular meals. Give artificial digestants to insure against distress. Direct the patient to eat at least a mouthful of every article that is placed on the table, especially if it is food that she does not like or that does not agree with her. Within a month she will have learned to like and digest it. An incredible quantity of lanolin can be rubbed into the skin, restoring the contour of beauty to wasted features. Any oil can be rubbed in but this is the best and gives the most solid fat. This fact has been worth fortunes to the beauty specialists who sell this knowledge and an ounce of codliver oil for a dollar, and get the results they guarantee. Hot baths

and massage are useful aids. A little sanguinarine is especially useful for skinny old maids with dysmenorrhea or amenorrhea.

Acidity.—A dram of sodium bicarbonate gives quick but merely temporary relief. Better see to the bowels—they usually are clogged. Regulate diet and regimen; stop gastric fermentation, and prescribe a combination of sodium bicarbonate, sodium sulphocarbolate, menthol and xanthoxylin. For the acute gastric cramps, sometimes due to acidity and fermentation, nothing so quickly stops the pain as a grain of calx iodata. Beats all anodynes, even chlorodyne. Were I to be limited to two remedies when off on a trip, I should choose calx iodata and juglandin. Not being limited, I take a twelve-vial case and a supply of an effervescent saline laxative.

Common Causes of Indigestion

Practical observations on digestion and diet, with some suggestive thoughts concerning the common stomach ailments and how best to treat them. Through all there is a running fire of comment, based upon clinical experience

By F. B. GOTTSCHALK, M. D., Chicago, Illinois

III.—Beverages.

THERE is really no sound basis for not drinking water at meal-time, that is, unless it is merely used as a washdown. Water taken moderately with meals improves digestion and facilitates absorption, hence must be avoided by obese people. (Withdrawal of water at meal-time prevents the deposit of fat and reduces the quantity of fat already deposited.) During the process of digestion all the various foodstuffs take up one or more molecules of water, and undergo disassociation into simpler molecules. Thus one molecule of neutral fat takes up three molecules of water, to be transformed into glycerin and fatty acid. The action of water on the food quickens the process of digestion, without which it would take an indefinite length of time.

Cold water taken at meals may put a temporary injunction on the work of the alimentary canal, the stomach being unable to carry on its business again until the regulation of temperature has been restored. The reason why hot water will relieve thirst faster than cold is that it is absorbed almost at once, while cold water must be warmed before it can be absorbed, and the more cold water is drunk at the time the longer it takes to warm it up to a temperature fit for absorption.

The Effects of Alcohol upon Digestion

Alcohol when taken into the stomach in an appreciable quantity manifests itself by precipitating the pepsin in the gastric juice and coagulating the albumen in the food, converting that of animal origin into a form particularly hard of digestion. The use of alcohol to increase the flow of gastric fluid is very imprudent and uncalled-for and is bound to work harm. Deductions drawn from a series of experiments show that the mildest mixture of any liquors containing more than fifteen percent have a marked inhibiting effect on peptic digestion. Most of the alcohols ingested into the stomach are converted into acids, and the effect of these acids only tends to antagonize and destroy alkaline digestion.

The use of liquors, especially on an empty stomach, frequently interferes with the circulation of the blood through the liver, and anything which stops the flow of blood through this organ dams it back into the regions of the stomach and produces congestion there. Drinking on an empty stomach is sure to cause more trouble than when alcoholic beverages are taken with the meals.

In fact, the evil effects and the morbid appetite for liquor occur largely in connection with indulgence between meals.

Alcohol belongs to the well-known group of anesthetics of the order of chloroform and ether. Its action is much slower, but the nervous phenomena produced by alcohol are the same as those produced by either of the others. Its affinity for oxygen, of which it robs the blood, makes it directly the cause of loading the blood with all those toxic principles resulting from imperfect oxidation of the tissues. Clinical experience for years has told us that alcoholic beverages for the gouty or the rheumatic must be forbidden.

The Malt Liquors and Their Influence on Digestion

Malt liquors, such as beer, ale, porter, stout, are all the product of yeast fermentation and are harmless provided they contain little alcohol and are free from the ferment-inducing microbe. Malt extract should contain all the diastase in the malt and no alcohol. The chief merit of malt extract depends upon the diastase so far as aiding the digestion is concerned. As the acids in the stomach destroy diastase, it should be taken before meals, before the stimulating foods draw out the gastric juice.

In large quantities beer is a powerful retarder of stomach digestion, in particular of farinaceous foods, in proportion to the degree of acidity and percentage of alcohol. In moderate quantities, a tumbler or so, the lighter beers may assist digestion, the action being similar to that of any of the other bitter tonics. When taken into the stomach they act locally by stimulating the appetite, inducing increased flow of saliva and gastric juice, and stimulating the movements of the stomach, thus aiding the digestion of ordinary food.

The net result of moderate doses of malt liquor containing less than three per cent of alcohol is favorable to digestion, since by dilating the superficial blood-vessels it promotes the flow of gastric juice as well as the peristaltic action of the stomach. Taken in doses of over five percent of alcohol there is a marked delay in the process of digestion. Pancreatic digestion is also very sensitive to alcohol in so weak a solution as one of three or four percent. In large doses alcohol hinders absorption on account of its direct injury to the cylindrical epithelium cells of the stomach-walls.

Beer is particularly harmful to patients whose gastric motive power is limited, although it need not be denied to patients who have a vigorous stomach activity.

Stout is more digestible than beer; better than beer; it is also better than opium for combating insomnia. The residue in dried beer has an action similar to that of morphine, which is ascribed to one of the constituents of hops. [The authorities are very much at sea on the pharmacology of hops.—Ed.]

The Wines Interfere with Digestion

Wine, claret, champagne, etc., are much more powerful in inhibiting salivary digestion than beers or an equal amount of alcohol and water of similar strength, the effect being largely due to their acidity. This inhibitory power of wines, etc., is lost when their acidity is neutralized by some alkaline aerated water. The high degree of acidity present in wines makes them especially harmful to gouty and rheumatic individuals. It is unfortunate that the man who takes alcohol as an appetizer or as an "eye-opener" in the morning takes it because he already feels, as he expresses it, "rotten." Taken on an empty stomach alcohol is rapidly absorbed and finds its way to the already embarrassed liver. The tissues of different individuals vary greatly as to their oxidizing capacity on alcohol. This makes it possible for some persons to tolerate more alcohol without injury than others. The tannin present in some of the red wines makes them useful in certain cases of diarrhea and harmful to those who are constipated.

Alcohol acts as a local irritant to the mucous membrane of the stomach, causing it to become somewhat corrugated and whitened by reason of the removal of the water from the cells and the coagulation of its protoplasm. Unlike water, alcohol is freely absorbed by the mucous membrane of

the stomach, and as it requires no digesting, this happens at once. This ready absorption is made use of in the administration of drugs and explains the rapid action of many tinctures.

The apparent improvement in the digestion of fat brought about by alcohol is not due to any action of the alcohol but rather because much larger quantities are taken with it than without it. The improvement in the patient is not due to the improvement in intestinal absorption, but upon the increased amount of fat taken when its taste is improved.

Contrary to the popular notion wine is not a good blood-making food, for during the process of fermentation the organic salts and mineral elements found in fresh grape juice are precipitated and therefore usually found in the sediment of the fermenting fluid instead of the finished product. Alcohol ingested with spirituous liquors also goes on to precipitate the mineral elements of the body and hence still more impoverishes the blood which already is lacking in these important elements.

It has been demonstrated that alcohol has a fuel-value equal to that of butter, each giving off about 2000 calories per pound. This, however, must not lead us to assume that they are of equal food-value, for the heat furnished by alcohol is rapidly diffused and dissipated, while that furnished by fat and butter is given off slowly.

The "Stimulant" Action of Alcohol

Alcohol has been looked upon as a stimulant, but we now have every reason to believe it to be an anesthetic rather than a stimulant and that it should be classed with the other well-known anesthetics, such as chloroform and ether. Like these latter drugs, alcohol has a marked affinity for fat, or rather lecithin, the fatty substance which forms the foundation of the central nervous system or structure. When lecithin has been administered hypodermically it has been found that it curtails anesthesia, and when enough is administered, abolishes it altogether. Alcohol has also been looked upon as a fat-sparer. It may, indeed, be considered as such to a certain extent, but only in so far as it paralyzes the individual cell, making it unfit to cope with the fat brought to it.

Alcohol, by dilating the blood-vessels of the skin, may cause temporary feeling of warmth, which is, however, invariably followed by a lowering of the body-temperature, as more heat is given off by radiation than is generated in the body. Arctic explorers have found this out to their detriment. It has long been known that an intoxicated individual will be more liable to freeze to death than a sober one. The action of alcohol in opening the surface blood-vessels is frequently made use of in breaking up a cold due to exposure, as it tends to restore the normal equilibrium in tissues which were temporarily paralyzed by the cold. As the action of alcohol is only temporary, the folly of taking a drink before going out into the rain and cold is of course self-evident. Prolonged use of alcohol causes vascular paralysis to become more permanent, whence the bloated look and the purple nose of the drunkard.

Sweets as Substitutes for Alcohol

Drunkards, when they wish to leave off alcohol, often begin to take an interest in sweet things, such as confectionaries and drinks in which sugar is a component part, apparently upholding the theory that sugar and alcohol are interchangeable or that sugar may be used as a substitute for alcohol.

It is well-known that the men who drink hard scarcely eat any sugar. I was recently informed by a patient that the use of ice-cream had permitted him to overcome the craving for alcohol. To overcome the demand for the morning stimulus of alcohol, honey is frequently taken with success. Loaf-sugar, sweet fruit, raisins, dried fruit, new sugar-prunes, maple-sugar, marshmallows, in fact all forms of confectionery may be used by such persons if they contain mental and moral stamina enough to carry on the treatment for a short time. It is important or at least it would be wise for such persons to place themselves under the direct supervision of a physician because of the condition of the stomach from the previous

use of alcohol. The mucous membranes of the digestive organs must be brought back to an approximately normal condition.

Rootbeer cannot be too strongly condemned, as it deranges the alimentary tract by the introduction of yeast. Some yeasts are harmless and some are harmful. This fact is recognized and causes breweries to employ competent bacteriologists to attend to the cultivation of yeast, using only the peculiar desirable fermenting microbe.

Vinegar is the product of alcoholic fermentation and is an elegant agent for preserving food outside of the body, but when we take victuals into our stomach we don't wish them preserved, neither do we wish the digestive processes to be retarded.

Tannin Makes Trouble in Tea and Coffee

Tea and coffee are likely to delay digestion, especially if taken immediately after a full meal. This action is largely attributable to the local effect of tannic acid, hence the retarding effects will depend largely upon the weakness of the infusion. Different articles of food are affected in different degrees or in an unequal measure. Thus its action on starchy food depends upon its interference with the action of the ptyalin, which is not active in an acid medium, while it reduces the acid-absorbing powers of the proteid foods by its local astringent action upon animal tissue, converting it into a leathery substance. Hence tannin-bearing articles should never be taken with meat. Aside from this, tannic acid has an irritating effect upon the mucous membrane of the stomach, and in this way may set up a chronic catarrh. (A pinch of sodium bicarbonate may neutralize the effect of tannic acid.)

Where there is an active and vigorous stomach the deleterious action of the tannic acid is overcome by a sort of compensatory activity which is produced by the action of caffeine or theine. These substances when isolated and used alone produce the same effect upon the system, for their chemical composition is identical. In fact, most of the caffeine used by the drug trade is made from tea. The volatile oils give tea and coffee their characteristic aroma.

Tannin does not dissolve out of the tea as readily at the theine. In an infusion of tea of from four to six minutes' duration most of the theine will be extracted while the tannin will largely remain undissolved. The boiling of coffee is to be condemned for very much the same reason, the drip-method being by far the best.

The action both of caffeine and theine is to accelerate the blood flow and to act as a stimulant to the nervous system, augmenting functional activity, relieving muscular fatigue in the stomach-walls as well as in other organs. As tea and coffee are usually taken hot the action of caffeine ordinarily is accelerated. The effect of caffeine is particularly noticeable when taken on a cold day, when a hot cup of tea or coffee gives a far more pleasant sensation of warmth to the body than does an equal amount of hot water.

Caffeine and the Xanthin Bodies

The fact that the chemical formulas of caffeine and xanthin practically are identical should be borne in mind, especially so as the latter is a very toxic product of animal metabolism and when retained in the system gives rise to a number of very unpleasant symptoms, such as insomnia, muscular tremors, cardiac intermission, indefinite and uncomfortable feelings referable to the cardiac region—all symptoms which frequently are reproduced when tea or coffee is taken by individuals whose excretory organs are more or less inactive. Coffee and tea also render certain skin diseases very itching when ordinarily they are not so, and frequently give rise to pruritus of the forearms, thighs and legs and chest as well as pruritus of the anus and vulva. The author frequently has seen cases where nursing infants had severe eczema which promptly healed without practically any treatment when the mothers discontinued the use of tea which they had been taking in large quantities with the idea of increasing the flow of milk.

The above facts lead us to the conclusion that persons naturally of a very nervous disposition and those unable to dispose of their own toxins would better avoid putting addi-

tional work upon their excretory organs already overworked.

Cacao, like tea and coffee, contains caffeine, but in such small proportions as to be practically ignorable, and containing no tannic acid, it can be used without harm to the digestion; in fact when used with milk it may become an important item of food. Plain chocolate is the most nourishing drink of all and should be adopted as a beverage by those to whom large amounts of fat are not objectionable. Chocolate is the great standby of the French, and children carry it to school to eat with bread and butter, just as American children eat ham in a sandwich. For a day's tramp or a long run on a wheel a few cakes of sweet chocolate furnish an easily digested and sustaining form of food.

Mind Rhythm: Treatment of its Abnormal Phases

How the cycle of sleeping and waking becomes disturbed and how we may recognize the nature of these disturbances, giving the key to their intelligent treatment

By THOMAS H. EVANS, M. D., Freeport, New York

WE naturally suppose that people sleep and awake as a matter of diurnal rotation. There are, however, cases frequently occurring in which the cycle of sleeping and waking is not of twenty-four-hour rhythm. The sum of sleeping-time and wakefulness in these cases is more or less than twenty-four hours. We find in such cases an example of retardation, or festination, in the points of change from one state of consciousness (as of day) to another (as of night).

This has an important clinical bearing in nervous breakdown or neurasthenic manifestations. A patient may complain of days on which he (or she) awakes too drowsily to enter the day's work. Or at night, after a sleepy afternoon, the patient becomes too wakeful to lie in bed. Insomnia may not be absolute, but merely relative, for the patient could have slept during the day-time.

Study Your Patient Carefully

At first the clinician must study the patient very cautiously, for the existence of drug-habit, or eye-strain, or anemia, or indolence, or dislike for his vocation, any of these being possible causes of interference with day-work and consequent disturbance of mind-rhythm. But the one rhythm will even here be one of twenty-four hours, in the first stage of mental permutation. The rhythm may be reduplicated: six hours wakefulness and six hours sleepiness, followed by nine hours wakefulness and three hours sleepiness, adding up to twenty-four, but causing the life of the patient to run completely across the grain of human conventions.

After stage one is past, some return to normal may occur by resolution. Or the second stage, that of major or minor rhthym, develops—such a rate as of eighteen hours, divided into ten and eight, or nine and nine, let us say; and again, a rate of thirty divided into twenty and ten, for example. But among my cases those of fragmental, or minor, rhythm predominate. This is probably a true proportion, because in mental change we rarely encounter strengthening (*sforzando*). The alteration proceeds along some line of less resistance, and is more involutional than constructive.

A Table of Variations in Mind-Rhythm

It is unnecessary to dwell upon the annoyance which results from aberrant mind-rhythm. Summing up the variations:

A. Twenty-four-hour rhythm:
   1. Normal.
   2. Abnormal.
      (a) Reversed ratio.
      (b) Fragmental.
         1. Reduplicated.
         2. Irregular.
B. Major rhythm:
   1. Regular or persistent.
   2. Irregular.
   3. Fragmental.
C. Minor rhythm:
   1. Regular.
   2. Irregular.
   3. Fragmental.
   4. Kaleidoscopic or unstable.
   5. Symptomatic or apparent.

These terms explain themselves, with the possible exception of the last two:

By "kaleidoscopic" is meant changeful, due commonly to neuropathic states.

By "symptomatic" or "apparent" the idea to be conveyed is "secondary" as in cases of exhaustion or irregular demands upon the labor of the patient, who, if not interfered with, would quickly return to a normal rhythm.

Retardation is a consequence of a major mind-rhythm.

Festination, of a minor rhythm.

How Classify? How Treat?

When a patient complains to us of some irregularity in the occurrence of sleepiness, then into what class shall we put his case and how treat it?

1. Group all cases referable to reflex disturbance as eye-strain, difficulty with occupation, indolence, anemia, scoliosis, flat-foot, etc.

2. Group all purely nervous cases, (a) as in nervous prostration, (b) or in (more or less transitory) exhilaration (genius, periods of creative work, stimulation of faculties as under the influence of a "grand passion").

3. Group all tonic cases, as of drug-habit, lack of hygiene, or wilful irregularity of life.

4. Group all pure psychoses.

5. Group all organic brain diseases.

6. Group all neurotic or essential cases.

The treatment of many of these is that of the cause.

When There Are Gastrointestinal Troubles

When gastrointestinal disturbance exists, employ some treatment proper to that. For constipation, atropine is invaluable, especially when combined with some hepatic and nervine agency, e. g.:

Atropine sulphate	Gm. 0.02
Podophyllin	Gm. 0.2
Ext. cascara sagrada	Gm. 2.0
Ext. valerian	Gm. 2.0

Make into 36 pills. Directions: One or two at bedtime. Laxative and nervine.

With the use of this derivative of belladonna we enter the magic territory of personality and idiosyncrasy. Light-haired women, or women who in youth were yellow-haired, require a very minute dose of belladonna or its alkaloids.

To those who have suffered from eye-strain, a wonderful relief may occur in nervous cases if, as is probable, the belladonna influences ocular conditions. Blonds are very susceptible to belladonna and many do not bear the drug well, even in fractional doses of great minuteness.

Special Remedies and Their Uses

Alcohol, in very minute doses, as of one-tenth of a drop, will influence nervous patients. In many instances the treatment by tincture or alcoholic fluid extract results less from the supposed medicinal agent than from the menstruum.

Strychnine frequently has a magical effect upon patients who bear ill the principles of belladonna.

Potassium nitrite in very small doses is excellent in cases second to increased vascular tension. Relatively small doses are advisable. There are clinicians who warn us against combining digitalin with nitroglycerin or the nitrites.

The use of bromides judiciously is paramount, but the disadvantages arising from bromide administration should be met and countered by some tonic and nutritive adjuvant, such as glycerophosphate or lactophosphate of lime (calcium) or sodium.

Recent studies point out some different action of the potassa, soda, and lime ions. Just how far clinicians may avail themselves of these results it will still be to determine. But patients may be classified as appropriate to the sodium or calcium ionizing influence according to their general tone or resiliency.

Vasomotor Disturbances

Avoid strychnine in treatment of increased vasomotor tension due to faulty elimination. Some minute doses of calomel followed by a saline laxative must initiate therapeutic measures.

Sleeping and waking have to do with some nervous equation. The influence of vasomotor tension is in some way associated. What the sympathetic centers have to do in these cases is difficult to say. Authorities are not yet ready to commit themselves on the action and reaction of sympathetic impulses. Their disassociation from control of the will, and their concern in matters of euphoria and nutrition, point to some connection with the lymph-vascular system in the affairs of reflexes derived from the protoplasmic functions of metabolism.

We know that contractile force becomes most highly developed in muscle-tissue. The other protoplasmic functions are specialized in skin as irritability, in connective tissues as nutritive, etc. In disease one or other tissue and function is to be regulated of course.

To give strychnine, increasing one function which is depressed, but also increasing the activity of other functions which may be in a state of overactivity, is dangerous. Atropine, in drying up secretions and favoring absorption, probably exerts a primary action upon connective tissues, lymph, blood and the sympathetic system.

But in the bromides, nitrites, atropine, strychnine, alcohol, valerian, sumbul, camphor, hydrargyrum, gentian, and the dilute acids (citric, nitric, sulphuric and hydrochloric), together with pepsin and pancreatin, and the quinine-calisaya-salol group, we find a charmed circle of remedies for nervous cases.

Equalize the tension of occupation. Tranquilize the mind by psychotherapy and any other therapy all the way down the line, as far as finding your patient a "job."

Stimulation and Feeding

Maintain a normal rhythm by appropriate stimulation and feeding up of the nerve centers.

At moments of sleepiness give the patient something to eat—milk, cup-custard, ice-cream, poached eggs, etc.

At moments of hunger the patient may really need a sleep, and feel better for it.

Reduplicated mind-rhythm is common to eye-strain and adenoids, until anemia is united with the syndrome, and then a minor rhythm will probably develop.

Major rhythms occur in paresis, or in genuine mental overactivity. For the latter prescribe open-air exercise and a regulated diet.

Hyoscine is available in organic brain diseases.

Attention to the skin in nervous cases is of first importance. Salt-baths should not be followed by the use of a towel. In such an event the saline particles are removed from the skin. But wrap the patient in a flannel or woolen garment to dry. These particles are absorbed. This causes very satisfactory effects upon nervous chilliness, drowsiness becoming true and restful sleep of normal duration.

Summary

1. Attend to circulation—its tension and rate, and character of blood.
2. Skin — its function and structure. Eczema, psoriasis and acne may be present.
3. Digestion must be normalized.
4. Feed up on nerve-constituents.
5. Psychotherapy is required.
6. Attend to general hygiene.

With these points in question lies the success of treatment.

Mind-rhythm is involved with the subtlest human conditions. We must regard every nervous case in its fullest aspect as concerned with the static alterations of consciousness. Personality and temperament are touched at their roots.

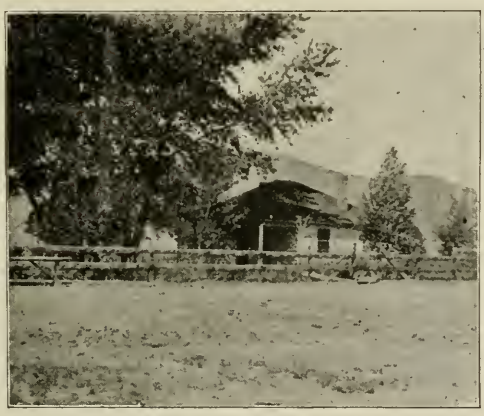
Medical Practice Among the Indians

The trials of a doctor in the United States Indian Service, in his struggle with sick Indians and antiquated medicines. Also some of the things that he has accomplished and that give him courage

By FRANK D. PATTERSON, M. D., Schurz, Nevada

IT having been suggested to me that I contribute an article concerning medical practice among the Indians, I concluded to write a brief sketch concerning the Pah Ute Indians of the Walker River Reservation in western Nevada, their peculiarities, and the difficulties encountered in obtaining the results desired in their medical treatment. I will premise that I am comparatively new in the Indian Service, only having entered the medical department on the twenty-fourth of last May.

Here at this point, Schurz, there is a small Indian school, there being very little to the town except Indians and Indian-Service employees. All the houses in close proximity to the Indian school belong to Uncle Sam, and I send photographs of the house that I occupy, the office, and one of the Indian residences. The Indians occupy either wigwams, tents or huts. The hills shown in these pictures are some of the foot-hills of the Sierra Nevada range and are in height from 2000 to 4000 feet above the Walker River valley, or from 6000 to 8000 feet above the level of the sea.



The house of "Uncle Sam" where the writer holds forth.

Copaiba, Jalap and Other "Relics of the Past"

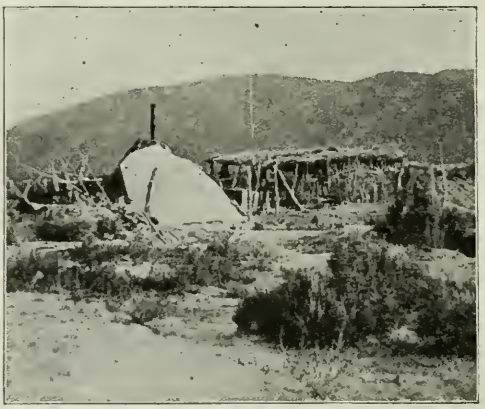
Upon inspecting the pharmaceutical supplies on the shelves in the office, lo and behold, what did I find? Not less than thirteen and one-half pounds of the nauseous balsam of copaiba; evidently thinking that there was not a sufficient quantity of that drug, one of my predecessors had ordered the mass of copaiba in pill form besides. That of course gives some kind of a hint as to some of the most prevalent diseases among the Indians. However, as the Indians are the only parties on this reservation who contract diseases of that nature, we do not feel very sorry that there is here capaiba instead of formin compounds.

Another relic of the past in evidence here is jalap. I have time and again wondered what jalap was ever invented for. Besides jalap, I found croton oil and also the compound extract of colocynth. Even the compound cathartic pills of the Pharmacopeia contain jalap, colocynth and gamboge, yet these pills also are on our shelves in great abundance. If a physician wants to promote chronic constipation in a patient, there is no surer means of doing so than by overstimulating the bowels with drastic purgatives, subsequent weakness of the muscular coats soon resulting. Antipyrin and various acetanilid compounds are also present, but most of the articles necessary for up-to-date treatment are either entirely wanting or present in contemptibly small quantities.

Desiring to substitute as much as possible the active principles for the useless and inert drugs, I wrote to the Department of

the Interior at Washington stating the condition of the supply of drugs on this reservation, also that on my small salary it was financially impossible for me to reach down into my own pocket to furnish Indians with the proper remedies, and then requested the Department to help along this good cause by furnishing such remedies as have in private practice brought the results.

Receiving a favorable reply, when it comes time to make out the list of supplies



The "Tepee" or Home of an Indian Family.

to be purchased, I shall, as much as possible, substitute drugs of known therapeutic strength for those of unknown strength, and in time give the Indians the benefit of modern treatment. Meanwhile, I am forced to resort to a double standard of treatment, using Uncle Sam's stale drugs on the Indians, but keeping my own supply of drugs of known strength for the benefit of the white people.

In the manual of examinations issued by the Civil Service Commission, it was stated that the average age of appointment was 28 years, and that, other things being equal, of two candidates making the same grade, the younger one usually had the preference. Being a little older than the age stated, it seemed somewhat like a game of chance going into the civil service. It seemed strange that there should be any age limit at all, for why should a young, inexperienced new graduate have the preference over a physician of long experience? This thing is certain, that a new graduate is up-to-date on the theory of medicine, while a nonprogressive older practician soon becomes a back number. The stacks of medical rubbish on the office shelves is strong evidence of that latter fact. It has been stated that a doctor, like a poet, is born and not made.

Indians Do Not Persist in Treatment

Seeing that it is necessary, for a while at least, to make the best of the obsolete drugs, we may comfort ourselves with the thought that the Indians are at best very crude specimens of humanity, who live solely for today without any thought whatever for the needs of tomorrow. On that account they do not persist in the treatment long enough to effect a cure as a rule. Feeling a little better or preferring some of their native medicine-men, they

Office Common to Superintendent, Physician, Civil Engineer and Chief Farmer.

discontinue treatment and let the disease take care of itself, even though by persistent treatment a permanent cure might be effected.

However, we do not need to look upon the Pah Utes with too much contempt, for of their number there are two of the most illustrious of American heroes of half a century ago that have been reincarnated. These two are Horace Greeley and John Brown. They are both on Uncle Sam's payroll. The dusky founder of the *New York*

Tribune works with team and shovel, while the hero of Harper's Ferry has been promoted to the position of Indian police.

Of course it goes without saying that the Indian takes kindly to all the vices of the white man, the red man being passionately fond both of liquor and opium, but also of the tincture of arnica. An Indian afflicted with rheumatism prefers a liniment to rub on, and preferably containing arnica, to any other rational medicinal and dietetic treatment. He comes once, and then discontinues treatment until he has another exacerbation of the disease. As a matter of fact, much of this socalled rheumatism is not true rheumatism, but is due in great measure to the gonococcus. With plenty of the sulphides of calcium and of arsenic, fortified by a disposition on the part of the Indians to continue treatment until cured, much of this ailment can be eradicated, but both of those conditions are here sadly lacking.

Blindness Due to the Gonococcus

It is surprising how many blind Indians there are on this reservation. For that the gonococcus is in a great measure responsible. Living as the Indians do in filth and dirt, is it any wonder that conjunctivitis so frequently results? By neglecting an apparently simple disease of the conjunctiva, soon the cornea and other parts of the eye become involved, and the sight slowly but surely fades away. As either no treatment is instituted or the treatment is very intermittent, no satisfactory results come from it and opacities of the cornea are surprisingly common. For beginning acute conjunctivitis, a most effective treatment is to instil twice a day a solution consisting of one part in 10 each of the 1 in 1000 solution of adrenalin chloride and of the liquor antisepticus of the Pharmacopeia. In making up this solution, preferably distilled water should be used. By means of this simple prescription, many a case of corneal opacity may thus be prevented.

One of the first cases that I had when I assumed charge of the medical department of this reservation was one of bad facial erysipelas of six weeks' standing. An Indian woman had been making an effort at tattooing her face, as is the custom of Indians of both sexes on this reservation. Living as she was in a terribly dirty and filthy hovel, no wonder that the streptococci were holding high carnival in her face? Her eyelids were so completely swollen that the eyes were utterly "out of sight," and both cheeks were like two huge abscesses. The patient was about "all in."

What had Uncle Sam on hand for that patient? There was of course on the shelves tincture of the chloride of iron, which is almost a specific for erysipelas; but how about its effect on the teeth, saying nothing about the irritation of the stomach and the tendency to constipation that it promotes? Having in my possession some 1-2-grain coated pills of calcium sulphide, I determined to have the patient take one pill every hour for ten hours in a day.

Here kindly excuse a slight digression. In regard to calcium sulphide, never use any pills or tablets that are not coated, for after standing, the sulphide of calcium gathers oxygen from the air and becomes the inert calcium sulphate. Also water is absorbed, slacking the lime and liberating hydrogen sulphide, thereby diminishing the strength of the original compound.

Now, after a day or two, the patient refused to take any more medicine. Such being the case, instead of the frequent small dose, it was necessary to substitute the large dose three times a day, thus giving in the twenty-four hours the same amount of the sulphide.

Of course the bowels from the start had strict attention in the way of calomel and podophyllin, but it was impossible to get the patient to take any kind of a saline laxative. That could be accomplished only by main force. Finally the patient's stomach began to rebel at the huge doses of the sulphide and so echinacea was substituted. Local applications were made with iodine and with ichthyol.

The internal medicine had to be crammed into the patient's mouth and forced down.

Even that at last became quite an undertaking. When the very sickest, the patient was too sick to rebel, but as improvement progressed, the power of resistance likewise increased, so finally we were compelled to abandon treatment.

All through the arsenates of iron, quinine and strychnine were given. The exuberant granulations were from time to time taken down with silver nitrate, and when treatment was discontinued, the skin was more compact, nearly as in health, the pus formation having ceased, and the edema having gone down so that the eyes which were formerly hidden were plainly to be seen, and the eyesight of the patient was saved. The slight remaining edema subsequently disappeared through the *vis medicatrix naturæ*, intelligent medical treatment having gotten the patient where nature could have a chance. To have that patient get well was of course a surprise to the other Indians, as well as a disappointment to her husband, who apparently wanted her to die.

On account of the poor sanitary conditions to which Indians have so long been subject, they have formed the erroneous apinion to the effect that any acute disease, ond especially pneumonia, is invariably fatal.

However, next winter I do not intend to forget the little granules of aconitine, digitalin, veratrine, strychnine arsenate and other appropriate remedies, to be administered in accordance with common sense. Of course we cannot expect quite the same result with Indians that we could with white people, on account of the poor hygienic manner in which the Indians naturally live as well as through the adverse mental suggestion that pneumonia is invariably fatal. However, if a few pneumonia-cases are cured, perhaps that delusion might be dispelled.

Hoping thereby to help create a sentiment for the use of the active principles in the Indian Service, I submit these remarks.

The Third Stage of Labor: How to Manage It

This article is the fifth in the series which Professor Rittenhouse is contributing on "Every-Day Obstetrics". The most important obstetrical problems are discussed from the standpoint of the "everyday" doctor

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois
Professor of Obstetrics in the Illinois Medical College.

THE third stage begins after the delivery of the child, and ends with the complete expulsion of the placenta, cord and decidual membranes, and the proper contraction of the uterus.

When the child breathes promptly after its delivery, the next step is the tying and cutting of the cord. In this matter I have departed in two respects from the custom formerly in vogue. I do not wait for pulsation in the cord to cease, and I do not tie the cord in two places.

Pulsation in the cord is no evidence whatever of placental circulation, as can be easily proven by pinching the cord a foot from the infant's body. We find that this does not affect the pulsation between that point and the body. Pulsation in the cord means nothing more than that the umbilical ring has not yet fully contracted, and is no proof that the child is getting anything from the mother. The child is breathing, and what more do we want?

But there is a positive as well as a negative side to the question. We have seen that waiting is not necessary. A little reflection will show us that delay is detrimental. For the mother's welfare it is important that her toilet should be completed and that she should be made dry, warm and

comfortable as soon as possible. She is greatly exhausted, her skin and clothing are wet with perspiration, and any unnecessary delay is liable to result in a chill. I think no one will deny that a chill increases the danger of hemorrhage. Even the trained nurse in her zeal to give the patient a thorough and scientific cleansing and toilet often keeps her exposed too long. The doctor should insist upon the first toilet being a hasty one. A more thorough bathing may be given a few hours later when reaction has been established.

The cord then should be tied at once. A ligature should be used which is neither too thick nor too thin. If too thin, it is liable to cut and permit hemorrhage. If too thick, it may deceive one into thinking it is tight when it is not. I prefer common knitting cotton, such as may be bought in any drygoods store. Twisted and doubled it is amply strong and makes an ideal ligature. Since using this material I have no leaking cords.

Application of the Ligature

I apply the ligature an inch, more or less, from the body. The old custom was to put another tie a little farther away and cut between them. This second ligature had its origin in the days when very hazy ideas of anatomy and physiology prevailed. It was feared that the mother might bleed through the cord and so the end was tied! I remember many years ago seeing a textbook which gravely gave this reason for the procedure. So tenacious is human nature of old customs, that though it has been known for generations that the mother's blood does not pass through the cord to the child, yet hundreds of doctors today go on tying the cord in two places because their fathers did.

The needlessness of the second tie is quite sufficient reason for its abandonment. The fact that it had its origin in ignorance is a still stronger reason, for science should purge itself of even the appearance of superstition. Such things belong in the same category as the belief that burying the placenta before it is cold will cause severe after-pains, or that feeding the baby a little of the father's urine will produce some magic effect—I have forgotten what.

As soon as the cord has been tied it should be severed about half an inch external to the ligature with a pair of scissors. If this is done carelessly the doctor may spatter himself and everything near with blood, because the contracting uterus forces the blood from the placenta into the cord with considerable tension. This little mishap may be averted by stripping the blood from the tie toward the mother an inch or more with thumb and finger while cutting. It can then be gradually released.

The tying and cutting require only the fraction of a minute, and the child should be wrapped in warm woolens and laid in a safe place. This means that if laid upon a chair or sofa it must be guarded lest someone in the prevailing excitement sit down upon it. To be "sat upon" so early in life is exceedingly depressing. Joking aside, this danger is not imaginary as most doctors who are in general practice can testify. Fatal injuries are on record although a baby is exceedingly elastic.

The nurse should not be permitted to begin the infant's toilet at once as her assistance may be required in completing the third stage. She should be at the doctor's elbow ready to obey his orders instantly. If emergencies arise they will be of such nature as to demand quick attention.

Delivery of the Placenta

Immediately after disposing of the infant the patient shou'd be covered up as much as is consistent with the manipulations required in delivering the placenta. There should be no unnecessary delay in completing the delivery, for the reasons cited earlier in this article. With judicious assistance the placenta can usually be delivered in from one to ten minutes. If left to nature an hour or more may be required to the discomfort and detriment of the patient. Of course, undue haste or violence would be unwise, but the point is that the doctor should *manage* the delivery. Any midwife could sit down and wait for nature.

One hand should be placed on the patient's abdomen, grasping the uterus firmly. Experience soon trains the touch to tell whether the placenta is still in the uterus or whether it has descended into the vagina. The other hand should grasp the cord just external to the vulva, and should make just enough traction to keep the cord taut. In this way the descent of the placenta is reported to the eye by the hand moving away from the vulva. The cord is very slippery but may be prevented from slipping through the grasp by twining it in and out among the fingers.

As long as the placenta is in the uterus it should not be pulled upon with any force for fear of "buttonholing" it, that is, pulling it with its flat side toward the os. In this position its delivery would be as difficult as pulling a button forcibly through a buttonhole. In other words, the placenta must not be *dragged* from the uterus by the cord. The uterus should *squeeze* it out by contraction. Then it comes in the form of a rolled-up pancake, which is the position of least resistance.

As soon as the placenta is partially out of the uterus, traction on the cord may gradually be increased, for there is no longer any danger of "buttonholing." The patient may now be asked to bear down or to cough, as both these actions aid materially in expulsion. Prompt delivery usually follows. It must be remembered that the pelvic canal has a decided curve, and when the placenta is at the upper end of the vagina the direction of traction on the cord must be toward the mother's feet, while as it approaches the vulva the direction must be more toward the pubes.

The Decidua Vera

As soon as the placenta has escaped from the vagina, it is usually found that the membranes are still held by something. They reach up into the uterus where they are still more or less firmly attached. The explanation of this is evident. The lining of the pregnant uterus is known as the decidua vera. The placenta is a greatly thickened portion of this decidua. So when the placenta is detached it pulls the decidua off with it, beginning at the placental margin and spreading in every direction, inverting it in the act of detachment by a process similar to that of inverting a stocking by reaching into it and pulling the toe out through the leg. It will thus be seen that the last portion of the decidua to peel off from the uterine wall will be that lining the lower segment near the os. Hence we find that very often the membranes hold fast after the placenta is delivered. Then if we pull too hard they tear off and some of the decidua is left behind. This will then be cast off by sloughing. This is unfortunate, for sloughing tissue forms an excellent culture-ground for pathogenic bacteria. With a little care this undesirable result may be avoided. If the placenta be turned over and over so as to twist the membranes into a rope they will be less liable to tear. Then, making gentle but steady traction with one hand while the other firmly kneads the uterus, a little patience will soon effect a clean delivery.

At this point, if I have any doubt as to the uterus being absolutely empty, I explore its inside carefully with two fingers. Some timid souls are afraid to do this for fear of infection, but I regard leaving a piece of placenta or membrane as a much greater danger. I am no more afraid of putting a clean finger into the uterus than I am of putting it into the abdominal cavity in a laparotomy. I have followed this practice for many years, and not only is there absence of infection, but a decrease in the number of cases of severe after-pains, of postpartum hemorrhage, and of offensive lochia.

Very severe after-pains are generally caused by efforts of the uterus to expel something that should not have been left there. A fragment of placenta or decidua acts as a nucleus around which a clot forms. The uterus makes regular efforts to expel the foreign body by powerful contractions. These are called after-pains. In the relaxation between these contractions more blood flows into the uterine cavity, which adds to the size of the clot. The larger the clot becomes, the more widely the mouths

of the uterine sinuses are held open, until finally a severe hemorrhage takes place. If the nucleus of placental tissue remains with or without a clot around it, in a day or two decomposition begins and an offensive odor accompanies the lochial discharge. Since I have made it a routine practice to explore the uterus after the delivery of the placenta, I very rarely have cases of offensive lochia.

Compression of the Uterus

In the half hour following the delivery of the placenta the uterus should be frequently palpated through the abdominal wall to make certain of its firm contraction. So long as it lies just above the pubic bone and is hard and round, it is safe. But if it gradually rises toward the umbilicus, that is evidence that a clot is forming; and if it becomes enlarged and soft, there is lack of proper contraction and a hemorrhage is imminent. It should then be pressed and kneaded, and, if necessary, explored internally. It should not be left until it is empty, small and firm. The doctor should never leave an obstetric case until at least an hour after delivery. If the uterus is in satisfactory condition at the end of an hour it is pretty likely to remain so. But to leave sooner is not doing the patient justice.

Some obstetricians make it a rule always to compress the uterus firmly with the hand for half an hour after delivery. I do not advise this as a routine practice, because in the majority of cases it is unnecessary. To be effective this pressure must be so firm as to cause some discomfort, and I see no reason why every patient should suffer this discomfort whether she needs it or not. If the uterus is frequently palpated there is no difficulty in determining which cases need compression.

Crede's Method of Expressing the Placenta

One of your readers has written me to ask my opinion of Credé's method of expressing the placenta. I no longer use it. It savors too much of violence. Where it would be successful it is not needed and where it is needed it would not succeed. Perhaps that sentence sounds like a Hibernicism, but what I mean is this:

When the placenta is detached from the uterine wall the delivery will be easy and Credé's method will not be needed. On the other hand, when the placenta is still adherent Credé's method would not be successful in squeezing it out, unless an amount of violence bordering on the dangerous were used. And even if we were then successful there would still be the danger of leaving some fragment attached to the uterus. What such a placenta needs is not violence and haste but *time*. If an adherent placenta really needs forcible removal I prefer one hand in the uterus. Then I can tell what I am doing, and whether it is thoroughly done.

After-pains, and How to Treat Them

Painful contractions of the uterus during the forty-eight hours following delivery are known as after-pains. During that time the normal uterus is in a state of constant tonic contraction, but at intervals varying from three minutes to three hours this contraction is greatly increased for several seconds at a time, producing a phenomenon similar to the contractions of labor. For some reason not clearly understood these contractions in primiparæ are usually, though not always, painless.

Probably the most important clinical fact connected with after-pains is, that if they come very frequently soon after delivery they are evidence of a foreign body in the uterus. That organ resents the presence of a blood clot or a piece of placenta and makes efforts to expel it. As a rule, during the first two hours after delivery, if after-pains occur every ten minutes, or oftener, the uterus is trying to get rid of something, and its interior should be explored. If the warning is neglected, postpartum hemorrhage may result.

Emptying the uterus is a more rational way of relieving after-pains in a majority of cases than the administration of opiates. There are, however, a few cases where, even with an empty uterus, the pains may be so frequent as to interfere seriously with the patient's rest, and then a dose or two of opiate may be necessary.

In some cases applying the infant to the breast causes painful contractions of the uterus. This requires no treatment. It is simply a reflex, and is interesting as showing the close sympathetic relation between the two organs. It has one practical side, however. In hemorrhage due to a relaxed uterus applying the infant to the nipple might help to stimulate that organ to a more vigorous contraction.

SURGICAL AND GYNECOLOGICAL NOTES

BY EMORY LANPHEAR, M. D., LL. D.

THIOSINAMIN IN URETHRAL STRICTURE

Have any of our readers made an application of thiosinamin in solution, injected into the urethra for the cure of strictures? If so, did the solution prove too irritating for employment in that manner, and was it effective? Many such bits of information, of priceless value to the practician, are lost because those who make the observations fail to report them. But that is exactly what CLINICAL MEDICINE is intended for—a clearing house for the practising physician. It only requires a few lines to record one's experience in such a case, and if each of the fifty thousand physicians who read CLINICAL MEDICINE formed the habit of sending in their reports on matters of interest we should all grow wiser together.

APPENDECTOMY FOR PERNICIOUS ANEMIA

The feces should be carefully examined in every case presenting symptoms of pernicious anemia. If the microscope shows the presence of bacillus aerogenes capsulatus (as it will in many instances) energetic measures for its eradication must be instituted at once. High colonic irrigations with thymoline and boric-acid solutions daily should be employed, and large doses of arsenic given at each meal, followed in an hour by salol or the sulphocarbolates of sodium and zinc. If these measures do not cure within six to eight weeks the appendix should be cut off at its junction with the cecum and the cecal opening sutured to the abdominal wall. (It is best to draw the appendix well out of the abdominal incision, stitch the cecum to the parietes, tampon the wound and surround the appendix with gauze for two or three days, and then cut away the appendix and open the cecum, after protective adhesions have formed.) The irrigation then may be made through the cecal opening and the condition relieved. By this operative treatment many apparently hopeless cases of pernicious anemia may be cured.

ROENTGEN-RAYS IN BASEDOW'S DISEASE

Careful examination of numerous cases of exophthalmic goiter (Graves' disease, or Basedow's, as it is variously designated) treated by x-radiance shows that in none has the thyroid enlargement disappeared nor has it been lessened to a great degree in any. In a few instances the nervous symptoms have improved and the general condition also made better; probably through psychic effect only. Upon the whole no marked beneficial effects can be ascribed to the treatment, and it should not, therefore, be offered as a substitute for operation in cases clearly surgical.

ANESTHESIA IN OPERATIONS ON THE NECK

Nothing is so distressing to the surgeon, and sometimes so dangerous to the patient, as the congestion of the vessels of the neck in operations on that region under ether-

anesthesia. At best the operation is vastly retarded and the amount of blood lost sometimes excessive. Coughing and vomiting always annoy on account of the grave danger of contamination of the field of work. Whenever, therefore, the mouth or throat are not to be entered the ideal anesthesia is that induced by two doses of 1-100 of a grain of hyoscine hydrobromide with 1-4 of a grain of morphine, with cactus, given hypodermically, three hours and one and a half hour, respectively, before operation, with a small amount of chloroform at time of work. If ether be insisted upon it may be given by rectum.

TYPHOID FEVER AND CHOLECYSTITIS

While inflammation of the gall-bladder dependent upon typhoid fever makes its appearance months or even years after the subsidence of the enteric fever, in rare instances it may follow immediately—indeed cases have been reported in which abscess of the gall-bladder appeared simultaneous with symptoms indicating involvement of Peyer's patches.

SYPHILITIC EDEMA

Sometimes a chancre is accompanied by marked edema of the penis. Here multiple incisions should be made for purposes of drainage. It is especially indicated in those cases in which there is not prompt subsidence under energetic antiluetic treatment —otherwise extensive hyperplasia of the connective tissue and extensive induration of the skin may later demand extensive surgical removal, with the result of ugly, distressing deformity.

TUBERCULOUS JOINTS

Practically all joints may, if the site of a trauma is insufficient to cause fracture, become affected by tuberculosis. The knee and hip are predisposed to this form of disease only during childhood, the tissues becoming too resistant later in life. Smaller joints retain youthful conditions much longer and some even into old age—hence may become infected with tubercle bacilli at any period of life.

Of nonoperative measures perhaps best results are now being obtained from judicious use of constriction hyperemia. A simple rubber band, two or three inches wide, is applied for an hour each morning and evening, with a layer of gauze beneath. The limb is comfortably placed and kept quiet until the constriction is removed. In a large number of cases this treatment has given better results than have injections of 10 per-cent iodoform emulsion; which may be afterward tried if constriction does not cure. The band is applied above the affected joint, sufficiently tight to cause marked venous congestion of the extremity below it, but not enough to cause much discomfort.

The presence of a sinus does not necessarily mean that this treatment will not prove curative. Age of patient is immaterial. This treatment must never be left to untrained assistants.

RADIUM FOR NEVUS

Many nevi, "port-wine" stains, pigmented moles and hairy moles are being cured by use of radium.

OPERATION FOR CANCER OF STOMACH

Resection of the pylorus is justifiable whenever there are no adhesions to the pancreas, i. e., when the tumor is freely movable; and whenever the glandular enlargements are not positively malignant, many nodules often being purely inflammatory. When excision is impossible, posterior gastroenterostomy should be performed as it gives the patient much relief.

TETANY FROM REMOVAL OF PARATHYROIDS

While the function of the parathyroid glandules is not known, it has been demonstrated that their removal is followed by appearance of tetany. For this reason, in excising the thyroid, the surgeon should keep

within the capsule whenever possible; but if the capsule must be excised, at least one of the four parathyroid bodies should be studiously sought and allowed to remain in place at the posterior aspect of the gland. Not only should the parathyroids be preserved but care should be exercised not to shut off their blood supply—principally insured by leaving the posterior part of the capsule whenever operation is for conditions other than cancer.

ACTIVITY OF RADIUM

The therapeutic possibilities of radium reside in the radioactivity of that agent. These rays are of three kinds, viz.: alpha, beta and gamma rays—named in the order of their discovery.

The alpha rays are composed of material particles (or ions) which carry a charge of electricity, always of the positive kind; they have a relatively slow velocity and little penetrating power. The beta rays, like the alpha, are composed of definite particles, but they carry a charge of negative electricity, have a very high velocity and possess great penetrating power. The gamma rays are totally different from these: containing no ions or particles, carrying no charge of electricity, moving with about the same velocity as light, and having enormous penetrating power.

The alpha rays are the ones which burn, which destroy tissue; and fortunately can be isolated. The beta and gamma rays cannot be separated; they are used in surgical therapy, for the cure of nevus, eczema, lupus, pigmented moles, rodent ulcer, keloid, and superficial cancer.

UNDESCENDED TESTICLE WITH HERNIA

Not infrequently an undescended testicle is lodged in the inguinal canal and closely resembles or complicates a forming hernia. In rare instances the testicle remains fixed at the internal ring or in the canal while the hernia slips by and pushes on into the scrotum. If the opposite testicle be normal and in proper place the one complicating the hernia may be removed, thus permitting ideal closure of the hernial opening, providing it cannot readily be placed and retained in the scrotum; it commonly being undeveloped and functionless. But if the other testicle be undescended or not normal, it is best (for mental effect at least) to preserve the one in the hernial sac. If it cannot be easily placed in the scrotum it is best to push it back into the abdomen and obliterate the canal. Any attempt at fixation in the canal will be followed by recurrence of the rupture.

LUMBAR INCISION IN APPENDICAL ABSCESS

Quite often the appendix lies behind the cecum, and when perityphlitic abscess arises from perforation of the appendix the entire abscess may be retrocecal, and sometimes extraperitoneal. Such abscesses are usually opened by incision close to the anterior spinous process of the ilium, i. e., from the front. But if the induration extends well around into the loin, and especially if fluctuation can be detected there, it is far better to make the opening in the back.

GANGRENEOUS GUT IN HERNIA

When a gangrene of the bowel is found in operating for strangulated hernia, if the patient's condition is such that resection of the gut will seriously jeopard his life, the best procedure is to open the ring enough to prevent any further strangulation, pull the intestine well out of the abdomen, pack gauze around and into the incision, cut out the gangrenous portion of gut and anchor both ends through a small hole in a towel—keeping the leaking ends as far away from the abdomen as possible and surrounding the protruding bowel with gauze. In a few days an abdominal section may be made to close the hernial opening and to make an intestinal anastomosis to cure the temporary artificial anus.

Unless the operator is very expert in intestinal surgery the patient should be removed to some hospital if possible—at all

events the services of a skilful surgeon should be obtained, for perfectly safe work on the intestine is not possible except in the hands of one who has done much experimental work on animals. This is a point too often ignored—with death as the result.

ILEOCECAL TUBERCULOSIS

Tuberculous disease may develop locally at or near the ileocecal valve. It may form a tumor-mass of such size as to cause stenosis of the gut, with consequent chronic obstruction of the bowel. The mortality following complete excision with intestinal anastomosis is high (24 percent at present) so that when the inexperienced operator encounters this condition the best treatment is enterostomy. The artifical anus should be made fully a foot above the ileocecal valve so that if the patient desire a subsequent radical operation there will be plenty of space for making safe excision of cecum and enteron far beyond the disease.

After removal of all of the disease and involved glands with inversion of the upper end of the colon, the free end of the ileum is to be sewed into the side of colon at least two inches beyond the line of inversion-sutures. Fecal fistula is inclined to follow this work rather more often than in any other intestinal work, even when suturing has been perfect (probably on account of the lowered vitality of the tissue), but almost invariably it closes spontaneously in a few weeks or months.

::: THERAPEUTIC NOTES :::

HYDRIODIC ACID IN CROUP

Dr. St. von Martinitz, Cedar Rapids, Iowa, says that he has had really wonderful success in the treatment of membranous croup by the use of a mixture of syrup of hydriodic acid and elixir of calisaya, iron and strychnine. The first case was his own baby, a child of three years, who experienced prompt relief upon the administration of this remedy. While one swallow doesn't make a summer and the doctor's experience may not be large enough to warrant general deductions, his remedy is most certainly worth thinking about. Quite likely the remedial action which it may possess is due to the presence of iodine in small doses. We all know what can be accomplished with this element in calx iodata and what this does for the relief of croup.

PHENOLPHTHALEIN AND INTESTINAL HEMORRHAGE

Dr. J. R. Lytle, Richmond, Kansas, makes the following excellent suggestion:

Dissolve a tablet of phenolphthalein in a test-tube and observe the pretty development of color. Then if you give phenolphthalein as a laxative in a typhoid-fever case and receive the bowel discharges in a vessel with lime do not conclude you have a case of intestinal hemorrhage because the stool happens to be red.

DOES ALUMINUM CAUSE TREMBLES?

E. L. Moseley, in *The Medical Record*, presents an interesting paper in which he attempts to prove that trembles, or milk-sickness, in cattle is due to the presence of aluminum phosphate in the leaves of the snakeroot and the rayless goldenrod. The disease has been traced to these two plants. Phosphate of aluminum has been found in them, and when this salt is administered to rabbits from day to day it will induce the same effect as does feeding on either of these weeds.

Aluminum was found in the milk each day after the cow began eating these plants, and this milk produced trembles in cats and

rabbits. Aluminum was found in the urine, kidneys, liver and muscles of rabbits fed with leaves of white snakeroot, and the meat of such rabbits produced trembles in cats. Dr. Moseley fairly proves his case. This is especially interesting since the loco disease has been traced to salts of barium in plants eaten by affected cattle.

CUPRIC OXIDE AS A TAPEWORM REMEDY

Ten years ago *The Practitioner* recommended this remedy, without the ordinary fasting routine prescribed for most teniafuges. For adults, pills of about 5 centigrams were made up with chalk, kaolin, and glycerin. For one week two pills four times a day, for the next week three pills four times a day, were given. At the end of the second week the bowels were to be moved vigorously with castor oil. For children pastils with chalk, tragacanth, sugar, etc., containing 10 centigrams each were ordered. Two or three were given daily, with the expectation of finding the debris of the tapeworm in the stools after three or four days. The direction was given to avoid acids, though this seems like straining at a gnat after swallowing a camel, when we consider the marked hydrochloric-acid secretion of the stomach. What has become of this treatment? It sounds plausible. Have any of our readers employed it?

DIGITALIS AND DIGITALIN

In cases of heart disease presenting aortic lesions McGee is of the opinion (*Therapeutic Medicine*) that strophanthus or sparteine may be preferable to digitalis; if the digitalis is used some vasomotor dilator should be given with it. [Our own experience leads us to favor the association of digitalin, strychnine arsenate and veratrine in such cases.] Of the active principles of digitalis McGee favors digitalin, which he thinks most nearly represents the action of the drug itself in improving cardiac and vascular tone. He has used it with satisfaction and considers it a reliable remedy, rarely going over 1-60 to 1-30 grain in dose, though doses as high as 1-10 grain have been recommended.

TINCTURE OF DIGITALIS

A correspondent of *American Medicine*, inquiring as to the best preparation of digitalis, says: "For a long time I have used a tincture of digitalis which is claimed to have been standardized. The results are sometimes good, sometimes bad, and oftentimes indifferent." The deduction is clear.

THE PRINCIPLES OF DIET IN CONSTIPATION

"Whenever we wish to alter the diet so as to produce a laxative effect," says Croftan in "Clinical Therapeutics," "we should add vegetables and fruit, and reduce the amount of meats, eggs and milk. The indigestible *cellulose* in vegetable food leaves a bulky residue and also mechanically stimulates the bowel to increased action. The *organic acids* and *salts* contained in fruits and vegetables decompose in the bowel with the development of CO_2, and as a result, the stools become more fluffy and the movements of the bowel are accelerated. *Sugar* contained in fruits and vegetables or formed from starches is also decomposed into carbon dioxide, which increases the looseness of the stools and stimulates peristalsis. *Fat* lubricates the wall of the intestines and favors the formation in the bowel of soaps and glycerin, which act as laxatives. Here, then, are the chief constituents of a diet which produces copious stools and a sufficient amount of intestinal action.

"In favorable cases, there may be added to the diet salt meats, salt fish and other salt foods, in which the sodium chloride draws water into the bowel, or at least prevents the absorption of a certain proportion of the water from the bowel. In addition, the patient should drink plenty of plain cold water, or better still, cold carbonated water. The latter may be taken on an empty stomach. Beer, kefir, sour milk and other beverages containing yeast-cells are particularly useful, in that they add to the formation

of carbon dioxide in the intestine. Juicy fruits, such as melons, pears, apples, peaches and plums, offer an opportunity of introducing a large quantity of fluid, sugar and fruit acids, together with some cellulose."

APOCYNIN—A REMEDY FOR DROPSY

McGee again calls attention to the value of this remarkable remedy in *Therapeutic Medicine*, as follows:

"There is a native plant, the apocynum cannabinum, or black Indian hemp, which has long been recognized as of great aid in cases of cardiac dropsy when a good preparation is employed. I am quite familiar with it, having used it for years, and believe it a remedy always to be considered in the treatment of this class of cases should our ordinary agents fail to give relief. Large doses are extremely apt to disagree, and I believe the dose of the fluid extract, 15 minims, as usually stated, to be quite too large for general use, 5 minims or even less generally being sufficient for its cardiac and diuretic effect. Its intense bitterness is an objection, and to obviate its nauseant action, it is best given in a small dose and with some aromatic or carminative. Its diuretic effect is often pronounced in the same class of cases in which digitalis excels. Its active principle, apocynin, is closely allied to digitalin in its action upon the heart and vessels, and in doses of 1-12 to 1-4 of a grain quite fully represents the eliminative action of the drug itself, while it is less apt to disturb the digestive organs."

LOCAL APPLICATIONS IN ERYSIPELAS

W. J. Robinson (*Therapeutic Medicine*) says that for the destruction of the streptococci in a given case we rely on antisepsis, the particular antiseptic used being a matter of personal choice and familiarity. The following are suggested: A 1 in 1000 solution of corrosive sublimate, or a 3 percent solution of carbolic acid. These may be used either hypodermatically about the margin of the affected area or as compresses. Ichthyol in 50-percent ointment with lanolin or as a wet dressing in a 10-percent aqueous solution, or mixed with collodion in the strength of 10 percent and painted on morning and evening is good. Chinosol compresses (1 : 500) are very beneficial in erysipelas. Mercurial ointment, compresses of solution of sulphate or iron, 1 ounce to the pint, or of permanganate of potassium, 1 grain to the ounce, and rubbing in with unguentum Credé are all well-tried and therapeutically efficient measures.

NICOTINE AND TOBACCO

At one time doubt was thrown upon the assumption that the characteristic effects of tobacco smoking were caused by nicotine, the opinion prevailing that these effects were due largely to the empyreumatic oils developed during burning. Now it is again asserted that nicotine is the main cause of the disagreeable tobacco-symptoms. Editorially, *The British Medical Journal* says that analyses to determine the percentage of nicotine in different samples of smoking tobacco, cigars and cigarets agree generally with the opinion of the smoker as to this being strong or weak, though there are some exceptions. Tobaccos containing little nicotine were usually considered weak, and *vice versa*, those containing much nicotine, strong.

In comparing the effects of smoking pipe, cigars and cigarets, however, other factors must be taken into consideration. The writer thinks that in the process of smoking a cigar or cigaret the percentage of nicotine in the shortening end must be much increased by filtration through the unburned portion of the tobacco. This portion is in contact with the lips and it is probable that considerable nicotine may be absorbed directly in this way. In the pipe the absorption from this source is less, though when there is an accumulation in the stem of the pipe it may be considerable. As a rule the unsmoked portion of the cigaret is larger than that of the cigar, so that the quantity of nicotine taken by the cigaret smoker is likely to be less than that by the cigar smoker. A calculation of the rate of smoking shows that

the total amount of nicotine obtained from cigars, cigarets and pipes is about the same in the same time, other things being equal.

On the whole the experiments seem to show that the alleged greater harmfulness of the cigaret over the cigar or pipe is not proven.

ASCLEPIAS

The Eclectic League for Drug Research suggests as the field for action of pleurisy root: Irritative or inflammatory states of the skin and lining membranes, associated with dryness or fever and lack of elimination; or with exudation, pain and other evidences of a disturbed capillary circulation. It is most useful in pneumonia, pleurisy, enteritis and acute general fevers. It is a mild remedy enhancing the action of other drugs indicated in these maladies. It undoubtedly controls capillary congestion with irritation and exudation. As an eliminant, through its power of equalizing the circulation, its action is indisputable. This is shown upon the skin, kidneys, bowels and all eliminating organs. One reporter praises it as a remedy for intercostal rheumatism. Another employs it for urinary suppression following scarlet-fever, and considers scanty, high-colored urine a specific indication for employment. In two cases of chronic nephritis it removed all traces of albumin, reducing the specific gravity of the urine from 1032 to 1020, as well as dissipating the signs which primarily called for it, such as emaciation, dry skin and an almost imperceptible, persistently itching eruption. Where a soother and healer to a membrane is needed, it should be studied.

ATROPINE IN DYSENTERY

"During the course of dysentery in children," says our friend Shadid, in *Ellingwood's Therapeutist*, "a mental condition sometimes occurs in which dulness is the most prominent symptom, slowly developing into coma. With me this is a prominent indication for atropine in very small doses, often repeated until an effect is apparent, and then less frequently. Last summer I saved a moribund baby, which was so afflicted, by stopping the medicine, which contained a small amount of tincture of opium, which was given for the tenesmus as a rectal injection by the attending physician, and giving instead atropine, as above suggested."

Opium may cause stupor in babies in very small dosage—and atropine is antidotal to opium. Furthermore, it relieves the visceral congestions of these infantile bowel troubles, bringing the blood to the surface, with improvement, as a rule, in all the symptoms.

A MOIST DRESSING FOR WOUNDS

A moist dressing for wounds, bruises, deep-seated inflammation, infected wounds and rheumatism, long used by Dr. W. J. McRoberts (*Ellingwood's Therapeutist*) and with very few failures, is the following:

Magnesium sulphate	ozs. 10
Phenol	drs. 6
Glycerin	ozs. 1½
Alcohol, 95-percent	ozs. 1½
Water, q. s. ad	ozs. 80

Dr. McRoberts says that this affords relief from pain in a very short time. In a case of diphtheria, where he was thirty-five miles from antitoxin or a drugstore, he used it, externally and internally, curing the patient.

The phenolated epsom-salt solution is no stranger to members of the CLINIC family; it has been frequently recommended in the Query Department. Its good effects are all that Dr. McRoberts claims.

AM STEINHOF

Dr. L. Vernon Briggs has reprinted from *The American Journal of Insanity* an account of the hospitals and sanatoria in Vienna for mental and nervous patients. The pamphlet is beautifully illustrated, and of much interest in showing the methods employed in the treatment of such cases in this great center of European medicine. Dr. Briggs is physician to the mental department of the Boston Dispensary and well qualified to appreciate what he has described in this booklet.

Cirrhosis of the Liver

The two common forms of cirrhosis of the liver, their signs and symptoms, and some suggestions as to their dosimetric treatment, as seen by Dr. Monin and reported in "La Dosimetrie"

CIRRHOSIS is either of venous or of biliary origin. Venous cirrhosis assumes the atrophic form, while biliary cirrhosis is of the hypertrophic order. Atrophic cirrhosis, which is also called the cirrhosis of Laennec, may attack any organ of the body, while biliary cirrhosis, also known as the cirrhosis of Hanot, is always localized in the biliary apparatus of the liver. unattended by ascites, peritonitis, or any other complications.

Atrophic cirrhosis always is preceded by a phase of hypertrophy; some vertigo, some acid dyspepsia, alternating diarrhea and constipation, some yellow spots on the skin, a certain degree of hyperchondriasis, all of which point to its development and you can then discover that the edge of the liver is passing over the costal borders, more or less. But soon the organ retracts, and there ensues tympanites, enlargement of the spleen, anorexia with nausea and gastrorrheic regurgitations; there may be epistaxis, hemorrhoids, gastrorrhagia from esophageal varicosity; the complexion becomes sallow, and there is emaciation. The third stage, that of ascites, is that of definite hepatic atrophy, and there is then complete asthenia, pruritus, insomnia, varicosities of the cheeks, etc. The abdomen may contain from five to twenty-five liters (quarts) of serous liquid containing from 20 to 25 Grams (300 to 375 grains) of solid matter per liter. Ascites is at the same time effect and cause of a profound embarrassment in the abdominal circulation, of peritoneal irritation, of visceral compression (dyspnea, edema), and is accompanied by tachycardia, oliguria, and at last by cachexia from serous depletion (*spoliation sereuse*).

Recovery from atrophic cirrhosis is rare, and it cannot be aborted except in its premonitory stage. Yet intelligent treatment often may bring about interruption of the sclerotic process and at times even a noticeable accommodation of the economy to the existing lesions in any stage of the disease.

The general line of treatment consists in a milk diet, revulsive treatment, such as alcohol compresses, wet-cupping, blistering and use of cold enemas, in addition to the administration of ureol i. e., urotropin, benzoate of sodium and of lithium [corresponding to the formin compound] and calomel dosimetrically administered in 1-centigram doses during the first few weeks, and in 1-milligram doses for the following weeks. I am too little a partisan of opotherapy—really an unbeliever—and an absolute enemy of raw pork liver, being too suspicious of the presence of concealed tubercular bacilli. At the same time we have to combat any existing hyperchlorhydria with the alkaline powder (equal parts of calcined magnesia and white sugar) to which should

be added some granules, dosimetric, of hyoscyamine, cannabin, or of Gregory's salt; anorexia is to be combated with helenin, quassin and strychnine, peptic insufficiency with papayotin, pepsin, maltine or pancreatin. In this way we restore the functions of the liver, "the most important organ of assimilation". (Dastre.)

The diet is borne differently and the action of medicaments varies according as the liver is overactive or torpid. Thus milk is an excellent sedative in hyperactivity of the liver, but is badly borne in case of defective action of this organ.

We must also remember that the liver is physiologically a fixer (neutralizer) of poisons and a defense of the organism against their action. Roger demonstrated, in 1887, that a rabbit will bear a larger dose of nicotine when injected in the portal vein than when injected into the vein of the ear. Frogs, whose livers were removed, succumbed to a smaller dose of poison than those retaining their liver. Consequently, we must guard against large doses of alkaloids in cases of hepatic deficiency (when the liver becomes incapable of fixing them) and let us follow the proved rule of Burggraeve of "small doses frequently repeated" and be safe against disagreeable surprises. Have we not seen even chloroform acting unfavorably upon the hepatic cells in cases of cirrhosis, even to the point of death?

Cirrhotics frequently have a weak heart and scantily secreting kidneys. In these cases stenol [caffeine and theobromine compound], in teaspoonful-doses three times a day in a little Vittel or St. Galmier water [bicarbonate and sulphate of calcium] will render decidedly good service. Let us remember also that the iodides in small doses (8 to 10 dosimetric granules per day) may contribute to the defense against the invasion of connective tissue. Four to eight dosimetric granules of strychnine arsenate per day will reaugment the resolvent action of the iodide and constitute a synergistic treatment of Laennec's cirrhosis. As variants in medication, we further have boldine and iodoform, and in case of palludism, quinine, iron arsenate, and so forth.

The abdominal dropsy must be relieved by puncturing, followed by energetic compression of the abdomen. Re-forming of the exudate should be prevented by a salt-free diet and the daily use of saline laxatives, in addition to stenol in appropriate combinations with cardiants, sparteine, strophanthin or digitalin, as may be indicated. I have little faith in the value of omentopexy, the well-known operation of Talma.

What is the influence of alcohol on the liver? The majority of nosologists of the present day seem to subscribe to Baumgarten's opinion, that it has a deleterious action on the walls of the stomach and intestines, that it facilitates the absorption of certain pathogenic substances not as yet fully understood. The wine-drinker is more predisposed because of the very slow poisoning of his system. In case the organism resists effectively then cirrhosis takes on the hypertrophic form, which is the less serious as the evolution is slower and so can be the more readily cured.

In adult ethylics [a politer term for alcoholics.—The Gleaner] who suffer habitually from gastric atony, anorexia, morning vomit of mucus, and other usual symptoms of alcoholism, the hypertrophic cirrhosis breaks out with a rush; the right hypochondrium becomes sensitive and subicterus makes its appearance on the temples and conjunctivas.

Soon the patient begins to waste, loses strength, and becomes feverish. The painful liver enlarges to beyond the false ribs; the spleen also becomes enlarged. The jaundice becomes deeper in color and more generally diffused and is accompanied by intense pruritus; the feces are colorless, the urine is mahogany-colored, the abdomen is ovoid without ascites. The appetite reappears now at times, but in spite of his plentiful eating the patient's emaciation becomes accentuated, and the extremities contrast in their thinness with the tumefied belly. The heart is weak, the pulse feeble and irregular, and the lungs are easily congested. On the dry skin, which is either purple or earth-colored, acne and purpura spots make their appearance. Cholemia is prominent and

the biliary troubles are here far more complained of than in Laennec's cirrhosis. The urine is scant, acid, high-colored, poor in urea and in sediment and rich in biliary pigments.

Ultimately the embarrassed circulation, joined to the progressive changes in the blood, gives rise to various hemorrhages, epistaxis and rectorrhagias principally, and the thoroughly cachectic patient marches to his fatal end in a few months.

The evil proceeds with paroxysmal outbursts on occasions of fatigue and errors of diet. The crises become more and more frequent and the patient becomes a prey to infectious fever, to anuric coma and severe icterus, which are the usual termination of his miseries.

The evolution to its end of biliary cirrhosis may occupy four or five years, but it is possible, by assiduous treatment, to extend this period to ten or twelve years and more, although without looking for a possible cure.

I generally prescribe a dose of seidlitz salt [saline laxative] and a dose of ureol every morning, with an interval of two hours between the two. Then two doses of bile salts and calomel, one centigram (gr. 1-6) of each, before every meal, and before retiring five dosimetric granules of boldine and one of podophyllin. Pilocarpine and sodium salicylate, two excellent cholagogs, are valuable variants in the treatment.

Resting in bed eighteen hours out of the twenty-four is most beneficial for cirrhotics, the dorsal position and the warmth under cover favoring nutrition and flooding of the liver. From the diet should be excluded all fatty articles, spices, condiments, crudities, acids, sauces, fried dishes, ragouts, pickles, pork, game, crustacea and shellfish, fish of fat meat and colored, cabbage, sorrel, truffles and champignons, pastries and sweets, undiluted wine, coffee, tea, tobacco.

During the dyspeptic and hypertrophic phase the milk diet often does excellent service. In other stages I prescribe various cereals boiled in milk, fresh butter, cream, cream cheese, pastry, string beans sparsely cooked, vegetable soups, purees of potatoes, green peas, lentils, chestnuts, soured cream, omelets, puddings, cakes of rice or of semolina, stewed fruit; but grapes, peaches and figs raw. (The grape-cure at times is very beneficial.) The bread should be very stale and should, in part, be replaced by baked potatoes.

When the functions of the liver are already diminished then the milk should not be given too freely, as that would only increase the trouble. We should allow 125 Grams (4 1-4 ounces) daily, and insist on white-flesh fish boiled in salted water. Eggs must be very fresh, boiled soft in the shell or jumbled, two per day; fowls must be young; lamb and veal must be broiled. As a beverage I have been advising, for quite a while, Holland gin (triumph ye homeopaths!) in doses of a teaspoonful in a glass of a light alkaline mineral water. Schiedam schnapps, Nasselt, Scotch or Canadian whisky in the same doses are still better tolerated by cirrhotics. In an advanced period keffir is the only beverage admissible. It is best for the patient to take four meals a day, two big and two small ones.—Dr. E. Monin, in *La Dosimetrie*, for June, 1909.

STUDIES IN MILK CORRUPTION

Dr. J. Petruschky delivered an address before the Danziger Aerzte-Verein, of which the following is an excerpt:

Investigations to clear up the question as to the causes of infant mortality showed that the fundamental cause is the summer heat, for its influence extends to the nursling himself as well as and especially to the milk (bacterial decomposition). The agents causing the decomposition of milk in summer are not only the peptone-formers, which Flügge especially has studied, but principally the streptococci, which proliferate vigorously only at a temperature of above 16°C. (160°F.), and more especially when this is increased to, say, 22°C. (71.6°F.). In some instances streptococci were found along with leucocytes so plentifully that under the microscope the milk had a pus-like appearance.

Numerously repeated tests of what American authors observed first confirmed that it is not only in the acute stage of mastitis but

even long after its subsidence that there is excreted from the cow's udder milk loaded with great masses of pus-forming streptococci, so much so that Von Behring designates such cows "coccus-cows." The milk of one such cow is capable of corrupting the milking of an entire stable.

The author demonstrated on himself by a subcutaneous injection of a boiled extract of streptococci that these cocci retain their toxicity even when boiled. Incidentally it was also positively observed that milk containing mastitic pus may produce diarrhea and vomiting in the nursling. Coccus-cows are so extensively distributed in the world that a number of investigators found more than half the number of cows in stables kept exclusively for "nursling's milk" to be thus infective.

The author's examination proved that those streptococci originating from purulent processes in the human being, as in scarlatinal urine and in cases of angina (sore throat), all produce more or less acidity in sterilized milk. Whether there are other sources of "milk-streptococci" the author did not know. He assumes that diseases of the cow or of the human being are the original sources of all milk-streptococci. These can be rendered harmless only when the milk has become strongly acid, when it has curdled, for it is only then that the bactericidal and poison-destroying power of the lactic acid can become effective. Just shortly before becoming sour the milk is most dangerous. The much-beloved "pasteurizing" of the milk delays the natural souring and curdling and retains it the longest in its most doubtful condition, which, however, can not be ascertained without a microscopical examination.

The speaker recommends to use, in hot weather, the unobjectionable milk preparations in preference to the unreliable and unstable socalled "fresh" milk. Among these reliable preparations the speaker names several of the continental milk preparations unknown over here, besides all inspissated or dry pulverulent permanent preparations which do not spoil in the heat of summer. Among the unstable preparations he counts "sterilized" milk, the decomposition of which, by Flügge's "peptone-formers" is capable of doing an immense amount of harm.—From *Deutsche Medizinische Wochenschrift*, 1909, p. 939.

GENERAL PERITONITIS FROM TYPHOID PERFORATION CURED BY LARGE DRAINAGE WITHOUT SUTURING

As described in the title, Potel and Minet reported a case to the Societé de Médecine du Nord, and recommended a like treatment in similar cases. Drain the abdomen thoroughly and as soon as possible (without greatly endeavoring to discover and suture the perforation) while the peritonitis is but little diffused as yet, the general condition of the patient not yet critical, and the operation not too belated.

The treatment recommended is based on the happy outcome of a case of typhoid fever. The patient was fifteen years of age and entered the hospital rather late in the course of the disease. In a few days signs of perforation became evident but no operation was performed until twenty-one hours after. In their comments the authors say:

"We were opposed to searching for and trying to suture the perforation. But we decided to place the patient on the operating table, and then treated the entire peritoneal cavity as a vast stercoral abscess. By this most simple intervention, which did not take up more than fifteen minutes, we were able to save our patient's life.

"One of us already once before had had occasion to treat by this method a stercoral generalized peritonitis of appendicular origin. On opening the abdomen a quantity of scybala was found floating in the peritoneum. The abdomen should be opened very widely, drained and dressed flatly over the intestine, without closing the abdominal wall. This insures the cure of the patient. We believe that by this procedure (which may be carried out very rapidly at any period) some patients may be saved who are past a condition to sustain the shock of an evisceration of the jejunum complicated by a suture of an incision or of an intestinal anastomosis."—*La Province Medicale*, 1909, p. 259.

Why I Joined the Medical Society

This article is a reply to an anonymous communication which appeared in the June number of Clinical Medicine, entitled "Why He Left the County Society". The two should be read together

WHILE there is a great deal of truth in "Why He Left the County Society," in the June issue of CLINICAL MEDICINE, the facts there given apply, I believe, more to the eastern than to the western county societies, and are, on the whole, more pronounced in the smaller societies than larger bodies. Still, in one of the county societies of central New York almost similar conditions obtain and yet the membership is large and the meetings very well attended.

Once or twice every year at the meetings of this body business relations between the physician and the public and the means of bettering local conditions are the topic of discussion, and many good talks are given. There the matter seems to end; but the leaven is working and in course of time will produce good results. It is usually the younger members who precipitate such talks, and generally their contentions will receive some support from some of the older members, who may, nevertheless, fail to practise what they preach so earnestly and smoothly in meeting. Therefore, the more need of constant reiteration of these things, and the more thoroughly the work is done, the greater the interest and the larger the results.

I have found that the "square deal" is usually given to all reputable and earnest members, and while some hot-headed old fellow may give the retort uncourteous to the offender against the established custom of ignoring and winking at things without the pale, so prevalent in the New England society mentioned, there are others who desire fair play and will take up the cudgel in defense. The county members may feel chagrined, cease attendance, and harboring a grouch against the society, may finally resign. The evils are thus perpetuated.

There is need of such a man as the "New England Pillslinger" stirring up those old unregenerates and inaugurating a fight against the evils, and while it takes time and hard and often thankless work, his efforts are certain of their own reward, even if only in the personal gain of work well done. There is enough of good in the worst of us, however, that well-directed effort along these lines must tend to the betterment of internal conditions, and the fighter against great odds sees his efforts more than repaid in the good of the whole.

Membership in the local society was once a personal matter and the individual physcian had little interest in the doings of the society, while petty differences of opinion and personal quarrels were more often subjects of discussion than the welfare of the local profession.

Now the county society is the unit in a great organization and it is the duty of every broad-minded eligible physician to become a member and to assist to the best of his ability

in the good work that is being undertaken by the National organization.

Loyalty to the county society is a physician's first duty, and existing evils must be fought in the county society. A live county society is the stepping stone to progress in county medical affairs and is just that much surety of a live state society.

A state society composed of half-dead county societies is a "dead one" and regeneration must begin at the bottom—in the unit. It is the duty of every member to do his share toward eradicating such evils as exist in his local society, and though resignation from membership may let you out, it does little to bring enlightenment to your fellow member.

The success of State and National organizations depends on the successful attainment of thorough organization of the units, and improvements in local conditions needs spells progress in the whole. If every physician worked alone and had to rely on his own unaided observation and experience for his knowledge, progress would indeed be slow. But instead he receives the foundation of all his knowledge from the profession of which he is a more or less deserving member, and he should try to repay in service. Otherwise he is selfishly willing to let others labor for his welfare without repaying in kind. He should accept the privilege of membership in his county society, thus sharing the benefits of medical organization with the profession as a whole.

There is a stimulus to study from association with workers in the same field. The physician more than any other professional man is isolated by the conditions of his life and society work is essential to his well-being. The educational influences of such association are great and the benefits accrue to the individual as well as to the aggregation to which he belongs.

Organization develops strength and gives increased power in handling perplexing problems, increases opportunity for scientific work and communications and the possibilities along practical and business lines. It is possible to raise the standard of the profession only through thorough organization, and a well-organized county society is the keystone to the completed arch.

And right here is the rub—for so much depends upon the first steps in the organization. Anything may do for a president, but the secretary must be chosen with great care. He is the most important man in the society and upon him in great measure depends the existence of the society. This seems rather strong but it is only too true. The secretary makes the society a success or a failure. He fills the meetings or fails to bring out the members. He makes the program interesting and instructive or dry as dust and as irritating. It is up to him to bring out the new fellows, to make them talk and keep them coming. There is so much for him to do and so important are his duties, a special paper should be devoted to his attainments.

Given a poor secretary, and the society is up against it good and hard. And then there may exist all the evils of which Doc Pillslinger complains so feelingly. It is damnable how a coterie will "freeze up" a good man with ice the most frosty kind; and they usually catch him without his overcoat. They will snub and cut him and wound his pride to the quick and it seems best to withdraw.

But is it best that he quit membership? Honestly, I don't think so. These doctors have big hearts, they are lovable fellows, when you get to know them. There is a common ground on which you can meet. *Find it!* Use diplomacy and tact, and though it may take time, it is time well spent, and you do not need to take yourself seriously —nor the other fellow, for that matter.

If there are evils in your society, set to work to eradicate them. One man may do wonders if he proceeds the right way. Sugar catches more flies than vinegar. There is a way to obtain a hearing also. If you have anything to say, say it as if you expected to be heard and had something worth while listening to. If you have nothing to say, say it out loud. Persistence in one direction will get you there—some time.

Membership in the county society brings with it membership both in the State and

National organizations, and this is a reason for joining. You are then one of a vast and mighty organization for the benefit of the profession as a whole and of every unit within its boundaries. You are one of many, it is true, but your interests are those of the many and the many interests should be yours. You work with the many and you assist in getting things done. It is the possibilities that lie before such an organization that are so attractive and far-reaching. You won't get all you want but you will attain something. A few unscrupulous souls may bring almost to ruin such an organization, but the organization will still live. It is bigger than the mites who usurp power for a space. Their fate awaits them.

The question, *Why I joined the county society*, may be summed up briefly thus:

Reason 1. In organized effort lies the only hope of uplifting the medical profession, of attaining the greatest good for the greatest number, and of protecting our own interests.

Reason 2. The county society is the unit, aggregation of all such units making the State and National organizations possible, and every reputable and earnest physician should become one of such a representative body to do his duty at cost to himself.

There are evils in all county societies, but it is up to the individual to "wake up, stir up, and regenerate the evil-doers." Only in such a manner are evils eradicated. It takes organized effort to do this.

Reason 3. In a county society we meet socially with our fellow workers, and I believe this is the most important part of such meeting if we recognize the part that is ours to play in making the most of our opportunity. It is the personality of our fellow member that affects us, as ours does him. We find him not so black as he has been painted. Association is good for us.

Reason 4. The programs are or can be made interesting and instructive. It is our duty to make them so. The discussions generally are good; if not, you are responsible as much as any other one member. I joined to acquire knowledge from association of ideas, also to give to others to the best of my ability.

Reason 5. I joined to strengthen the organization in the attempt to protect ourselves from imposition by the public, to meet the other fellow on common ground, and appeal to his interests in the effort to advance the interests of the whole, to breed a better fraternal feeling and close social relationship, to develop a better feeling between the profession and the public by the aid of public meetings and the spreading of knowledge along sanitary and hygienic lines through organized effort. This is only possible through organized effort. It is better to give the public the truth in such matters than have fakers give untruths. We have no mysteries to hide. Let in the light.

Finally, I joined because it was wholly advantageous to me so to do—or at least I thought so. There have been heart-burnings and failures and bitterness, but I have found the advantages far outweighing the disadvantages. Here in the west I have found the physicians free and frank in their relations with each other and the great majority are princely fellows. There are some black sheep, but a little whitewash rightly and judiciously placed changes their color amazingly.

No, my brother "Pillslinger," *do not resign*—get into harness and make your influence felt. *And stay with it!*

R. J. Smith.

Sollinston, Utah.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION

The thirty-fifth meeting of the Mississippi Valley Medical Association will be held in St. Louis, October 12th, 13th and 14th. The president is Dr. J. A. Witherspoon of Nashville, and the local arrangements are under the direction of Dr. Louis H. Behrens, who promises a profitable time to every person who may find it possible to attend. Dr. Sherman G. Bonney, of Denver, will deliver the oration in medicine and Dr. John B. Deaver, of Philadelphia, that in surgery. One special feature of the meeting will be a symposium on exophthalmic goiter, treated both from the medical and

surgical standpoints. The meeting follows that of the Centennial week in St. Louis, and the local committees are finding it possible to have numerous of the attractions of that week continued for the benefit of the association. St. Louis hospitality will of course characterize everything so that those who attend are assured of a royal good time. The sessions, offices and exhibit hall of the Association will be in the Southern Hotel, which has been chosen as headquarters.

A PRESCRIPTION FOR THE DOCTOR HIMSELF

In hot weather try more of the light foods and less solids.

Eat less and oftener.

Induce sleep by a cool sponge-bath followed by friction—if head feels full, add a hot foot-bath (on retiring).

If habitually constipated, Waugh's "anti-constipation pills" after each meal. (I receive no "rake-off" for this advice.—Pitkin.)

Having done "all" for a desperate case, go home and rest—"throw it off." Your life is too short to wear out in unprofitable worry.

When some of your regular patients "go the rounds" of the other doctors, don't lose faith in your own skill. Walk the sidewalk or drive "Major" or run your auto, as if you were the "big and only."

If God ever permitted any wiser man than you to carry the effective medicines of modern make, you never met him.

"Learn to swallow" and look pleasant.

"Stand in" with the editor—the chief of police—the minister—the priest—the millionaire and the corner loafer, but *don't give away* the mighty secrets of medical success that cost you "midnight oil" and good coin.

Do not believe every "hard-luck" story.

"Business is business." Get the "fee simple."

Don't let 'em work you.

Many an exponent of the "simple life" is where he is because of the "sample" life.

Remember every knock is a boost—therefore don't "run down" your rival. Speak well of him and be rated as a generous man.

Always *act* and *be* an optimist.

"Laugh and the world laughs with you."

Use dependable drugs and get results, and your patients will rise up from beds of pain to call you blessed and add to your reputation and "sheckles."

F. A. Pitkin.

Palmyra, N. Y.

THE RIGHT ATMOSPHERE

You are going to win. Your journal is the most practical and interesting of any I have read. There is the atmosphere about it that the success of all interested in you is as much to you as your own success and that you feel that your readers reciprocate—which they do. Never has there been such a fight, open criticisms, private and public, about evils and their eradication as at the present time.

Caroline H. Marsh-Wikle.

New Milford, Conn.

DRUGLESS HEALING VS. MEDICINE IN THE U. S.

"Oh wad some Pow'r the giftie gie us,
To see oursels as ithers see us."

I believe the profession does not fully realize the rapid growth of drugless healing in this country. In order to prepare a paper of this kind I have been to considerable labor, time and expense to get at the real facts, and to get reliable statistics that could be depended upon. In every instance I have gone to headquarters—to men who were the most competent to give the figures I asked for. I have had statements from three or four different men on each form of drugless healing and from them have formed a general average, so that I am prepared to give the correct data. I have tried to do justice to all without fear or favor. In presenting the following table of statistics I give the name of the particular form of drugless healing, also the number of practitioners and number of patients. The mother church of Christian

science, in Boston, has 40,000 members. There are 900 churches and societies in America.

	Practioners	Patients
Suggestive therapeutics; magnetic healing	10,000	3,000,000
Christian Science	5,000	4,000,000
Mental science	2,000	2,000,000
Osteopathy	5,000	3,000,000
Naturopath	2,000	3,000,000
Physical culture	2,000	1,000,000
Ophthalmology	1,500	862,500
Chiropratic	500	287,500
Faith healing	100	150,000
Food scientists	100	200,000
Emmanuel healing	100	100,000
	28,300	17,600,000

After deducting the illiterate and those who can not read or speak the English language, we find that out of a population of 70,000,000 people in the United States there are 17,600,000 who employ some form of drugless healing instead of going to a doctor for advice. Of the 15,963,965 families in the United States there are 5,000,000, or nearly one-third of all the families, which practise some form of drugless healing. At the present rate of increase in population, in 1920 there should be 88,000,000 population in our country. At the rate drugless healing has increased within the past ten years, in 1920 (eleven years from now) there will be not less than 55,000,000 of our population at that time committed to some form of drugless healing. They will hold the balance of power in this country.

At the rate of increase of medical doctors, deducting the deaths, there will be, in 1920, 160,000 doctors who will only have 33,000,000 people to depend upon for their bread and butter. In twenty years at the outside, the doctors will be out of business. The present tactics pursued toward the drugless healers by the medical profession, if continued, will only hasten its own downfall. We should have learned something by the past.

Going back one hundred years we had the new-school physicians to contend with. First we tried ridicule; then persecution; then prosecution; then medical laws, to buy and legislate them out of existence. All this has only helped them to increase so much faster, until at the present time we have 30,000 physicians of the eclectic, homeopathic and physio-medical (botanic) school who are patronized by 17,100,000 people in the United States. Therefore, to combat successfully with this drugless healing in our country we must change our tactics entirely or meet with defeat, as we have in the past. To understand why drugless healing is so rapidly on the increase in America, we must seriously consider the different causes that have brought about this condition of things. It is an old law in military science that "we should never expose our weak points to an enemy." Yet this is just what the medical profession has done repeatedly within the past century.

In our text-books, lectures, medical journals, and in the public press have appeared statements from prominent men in the profession declaring their want of confidence in drugs to heal the sick. All such statements have been just so much ammunition furnished the enemy with which to accomplish our own defeat.

By sticking to old theories, old ideas, old remedies, we have shown a lack of progress. Thus it is that many diseases of our people are not being cured by the physicians but, as the following table will show, the mortality is certainly not decreasing as it ought to. There it is that we have exposed a weak point to the enemy. Deaths from the following named diseases from 1890 to 1900:

	1890	1900
Consumption	102,199	111,059
Pneumonia	76,496	105,971
Heart disease	44,959	69,315
Diseases of kidneys	19,457	36,724
Typhoid fever	27,058	35,379
Cancer	18,936	29,475
Apoplexy	14,999	26,901
Inflammation of brain and meningitis	17,775	25,664
Paralysis	16,570	23,865

Influenza, diseases of the stomach, measles, diseases of the liver, peritonitis, scarlet fever, septicemia, diabetes, rheumatism, and cerebro-spinal fever also show an increase in the mortality. Of deaths from appendicitis in 1900 there were 5111. It is a fact, and not a pleasant one to contemplate, that many cases of the above diseases are being cured by the drugless healers. Thus it is

that they grow and fatten on our failures. While we, as a profession, have loudly protested that certain diseases are incurable by medicine, the drugless healers have cured them without medicine.

We have exposed another weak point in our neglecting the study and treatment of chronic diseases. Patients have gone the rounds of the doctors to get relief, but as they could not find it they drifted into the hands of the drugless healers. Within the past century our people, from an excessive use of tea, coffee and other stimulants, have become a nervous, hysterical people. Insanity is on the increase with nervous diseases. Many of these nervous patients go to other doctors because the physicians do not understand how to treat such cases. Many of them pass into the hands of the drugless healers. There they find someone who can "minister to a mind and nerves diseased."

Another weak point that we have exposed to the public is the fad and mania for operations. In every case where the surgeon can possibly find any excuse for an operation it is done. Thus it is that our American women, for many of the ailments that they have, are being unsexed and degraded to gratify the surgeon's lust for operations. How can the American woman perform the duties of a wife and mother when she has been mutilated and unsexed?

Childbirth is a natural process of nature, yet it is the fad now not to wait for nature, but to deliver the woman by instruments. This "meddlesome midwifery" has caused a fearful increase in cancer of the uterus, until we have 60,000 married women in America suffering from this disease. This is something we shall be called to account for at the bar of public opinion, and is just so much more capital furnished the enemy with which to condemn us.

We have raised the standard of medical education; we have lengthened out the course of study in our medical colleges; our teaching has become more and more technical and scientific, until it has reached the point where doctors are graduated, loaded down with technical knowledge and lacking the practical knowledge, "how to heal the sick." As the years pass on less and less time is given to the study of materia medica and practice, until at this time we give fifty per cent of the time to surgery. It would seem from this that it is of more importance to know how to "cut up" our patients than to know how to cure them.

We have had medical laws enacted making it a crime to heal the sick. These laws have proved a "boomerang" to the doctors. They are so well protected that they can't move from one state to another, but have to stick where they are. Your gray hairs, your age, your reputation, skill and experience won't save you; your diploma don't count for anything. It is for your medical board to decide whether you shall be allowed to practise your profession or not. The public may laugh at us for being caught in our own trap. Thus, while we have become so well protected by our medical laws, the people are learning how to cure themselves without our assistance. Every prosecution of the drugless healers—every time you stir them up—simply advertises them and adds thousands of friends and patrons to them. It is a well-known law in horticulture that with certain shrubs the more you stir the dirt around them the faster they grow. Let them alone and they wither and die. When will the profession learn wisdom and let these drugless healers alone? It becomes a very serious question: "What can be done to stem the tide of drugless healing?" It has been a matter of deep thought with me.

It seems to me that the future of our profession largely depends upon how we meet the present issue. It is a critical time with us and we can not afford to make any foolish blunders. With us it is simply, "United, we stand; divided, we fall." Our first move should be organization. Some would say: "Why not organize as one society under one name, dropping all pathies and isms?" Such a thing would be impossible. Each particular school of medicine has its history, its teaching, its traditions, its ancient landmarks. There is something we can do—stop quarreling among ourselves and calling each other names! In every village, town

and city let the doctors meet together, form clubs and societies and unite for the common good. Let us show the people we are united. To retain the respect and confidence of the public we must satisfy them that we are competent to treat any disease in our country at the present time, also that we believe in our medicines. If we can't do these two things our chances for success in the future are very slim. We must study the definite action of our remedies on the human body in health and disease. I really believe that there is a platform upon which all physicians who use medicine can unite, and with that platform they can save themselves and stand as a solid front before the world. I urgently request every physician to read it carefully and want to hear an honest expression from every doctor. Are you with me in the fight to save our profession?

Whereas, we believe it to be the business of the doctor to heal the sick.

Therefore, we hold the following propositions to be self-evident:

1. That it is the duty of the physician to use every means in his power to cure his patients.

2. That a therapeutic fact is of value to us, no matter from what source it may come.

3. That we are opposed to useless surgery, believing it to be the duty of the physician to give his patients the best medical treatment that skill and experience can give them and to only use surgery when necessary.

4. That we love and honor our alma mater and have perfect confidence in its faculty to judge of our qualifications to practice as an M. D. Therefore we insist upon our diploma being the passport for us to practise our profession anywhere under the American flag.

5. We are not afraid of competition with our brother physicians, and we do not ask to be protected by medical laws which prevent graduate physicians from practising.

6. We welcome to our ranks any respectable physician, no matter what his system of therapeutics may be.

7. We claim the constitutional right of every American citizen to use any remedies that may help us to heal the sick. We are opposed to any man or society of men dictating to us what remedies we shall use or what medical journals we shall read.

8. We are aware of the fact that much harm has been done in belittling the study of materia medica and teaching the uncertainty, thus making medical nihilists of so many of our profession.

Therefore, we earnestly advocate the diligent study of the action of our remedies, in health and disease, that we may all the sooner form a definite system of therapeutics, containing remedies that have a positive remedial action upon certain diseased conditions.

I really believe that the great majority of our doctors love their profession and want to treat the sick and do all they can for suffering humanity. That being the case, it would seem that every intelligent, broad-minded, whole-souled physician can honestly endorse the above platform with all his heart and soul. Under this standard we shall win out; divided, we shall go down to defeat.

Let us not deceive ourselves as to the strength and influence of drugless healing. Its adherents have spent vast sums and will spend much more in educating the public. Many books, pamphlets, circulars, magazines and newspapers are being published and distributed and are read in the homes of our people. They are fully organized with money, colleges, societies, lectures, etc. Every movement by the medical profession; every death from useless surgery; every death from antitoxin; every blunder made by mistaken diagnosis or treatment; every word uttered by a physician that can possibly be construed as lacking confidence in medicine is all recorded. The book is being opened and the profession is being judged "out of the things written in this book." You may rest assured that the people will give you all the medical laws that you ask for. They will then know that it will only be giving you a little more rope to hang yourselves with. Dating from the time when the first medical law was passed, drugless healing has been growing by leaps and bounds in this country. They are the

best thing to boom the drugless healing of anything that our profession could possibly devise.

While we are loudly proclaiming the importance of preventing disease let us not forget to inform the public that we can also cure it. What would you think of firemen called to a burning building telling the owner that they "did not know how to put out the fire, but they would try to prevent any other houses getting afire? What are firemen for if not to put out fires? What are doctors for if not to heal the sick?

From now on, if we want to retain the respect and confidence of the public, we must play fair and be honest with them. We profess to be able to heal the sick and we have simply got to "make good" or see the drugless healers grow and fatten on our failures.

ELI G. JONES.

Burlington, N. J.

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[While this intensely interesting paper has already appeared in several of our medical exchanges we make no excuse for reprinting it here. Dr. Jones has a real message.

With his conclusions in the main we agree. It is clearly the duty of the physician to "use every means in his power to cure his patients." He should brook no interference with his interpretation of that duty, and he should welcome and investigate every innovation that gives promise of increasing his efficiency, being brave enough to overstep "mere authority," if need be so to do. The ideas and discoveries which our profession rejects are too often eagerly grasped and zealously exploited by outsiders and this has been the real cause of the multiplication of the quack.

I do not agree, however, with Dr. Jones, that a medical-college diploma should be a passport to practice anywhere. If it were always granted by clean institutions and represented real professional attainment we might endorse the doctor's position. But any diploma, from any institution, belonging to any kind of a man, got in any kind of a way, giving the right to practice anywhere — God forbid! We want only clean, well-trained and skilful men in our profession— men capable of using their freedom intelligently.—ED.]

CHOLERA INFANTUM AGAIN

I have read and re-read your article on cholera infantum on page 737 of the July number and am surprised at your experimental treatment in this case. Why not look for conditions indicating certain drugs and prescribe accordingly? You have not mentioned the flannel band, pinned comfortably tight around the body of the child (always indicated in these cases), furnishing pressure to the abdomen and protection to the kidneys and this part of the abdomen from drafts or sudden changes of atmosphere.

Teachers of therapeutics should experience a severe bellyache, diarrhea or dysentery long enough to think of the comfort a little pressure over the lower abdomen affords the little sufferer. Adults with bad diarrhea and dysentery do furnish pressure to those parts. I have seen adults with diarrhea and dysentery fold bed-quilts and lie across them for relief. The babe doesn't know how to get that pressure and so we should furnish it.

I have stopped exhaustive diarrhea in old people and in the last stages of consumption by making a compress, then pinning a strong flannel band around the body and over the compress.

I'll tell you how I treat summer diarrhea in infants and children. The first thing is a band, made double, and of the best red flannel. (I prefer red on account of its counterirritant properties.) I have it made with "darts," so that it will fit the body neatly and pin or tie it comfortably tight around the child's loins and belly. I use the following ointment if the abdomen is large and tympanitic, or sunken and flabby: Cacao butter, ozs. 8; quinine sulphate, drs. 4; tannic acid, dr. 1-2; oil cinnamon, dr. 1. Sig: Apply over lower abdomen once a day.

Internally I give specific aconite, gtts. 5; specific echafolta, gtts. 30; specific nux vomica, gtts. 5; Calvert's pure carbolic acid,

gtts. 2; simple syrup, ozs. 4. Sig.: Half a teaspoonful every hour till stomach is quieted; then teaspoonful every one or two hours.

If the skin is sallow, brown coating on tongue, pointed and red, withhold all food. Prepare the juice of a lemon (without sugar) by adding sufficient juice to cold water to make it acid and give small quantity frequently to drink; also, in such cases, to a glass of pure cold water add 2 drops of specific aconite and 2 drops of tr. nux vomica, giving a teaspoonful of the dilution every half hour until the stomach is settled.

For the bowels I carry a compound, a formula of my own which I have been using for twenty years and it fits more cases than any other compound I have ever found: Willow charcoal (the best), ozs. 4; bismuth subnitrate, ozs. 4; King's camphorated Dover's powder, ozs. 4. Mix thoroughly and give from 2 to 10 grains, according to the strength of the child and condition of the stomach. One grain of the above every hour will frequently stop the vomiting when other things fail.

I seldom do any cleaning out in a babe. I have it sponged with soda and salt water if the mucous membranes are pale. I insist that all excreta be removed immediately, so no child can get the scent of it.

If the stomach will retain the food and the babe is bottle-fed I take the cream from the milk of a healthy cow, adding 3 ounces of boiled water, if the cream is extra rich and thick, to one ounce of cream, sweeten with milk-sugar, and give at a feeding 1 1-2 to 3 ounces, according to the condition of the stomach. If there is a probability that the milk will distress the stomach I follow with 4 or 5 grains of powdered lactopeptine in warm water. I have tried the foregoing treatment so long and with such wonderful success that I feel there is something wrong if I lose three percent of my cases.

J. E. Smith.

Mt. Carmel, Ill.

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[The doctor is perfectly right about the flannel band. We do not see how we came to omit mention of it in the editorial which he criticises. Probably it was because we were just then thinking earnestly of driving into the minds of our readers some much-needed lessons on the subject of accurate drug-therapeutics and of fitting the remedy to the phase of the disease in each particular case. The writer has a very vivid recollection of employing the principle of pressure, "over a chair," when he was a youngster, for the relief of pain "under the apron."

The doctor gets such good results from the remedies mentioned that we are confident that with such clinical skill he would get even better ones if he used more precise and hence more easily directed forms of medication.

While we do not wish to appear critical there is one thing especially in the doctor's treatment to which we wish to take exception, and that is the use of milk (or cream) as food during the acute stages of the disease. We know now that cholera infantum is an acute milk infection, and that the organisms causing it do thrive best on a milk diet. So we withhold the milk entirely for a number of days. A little semistarvation for twenty-four to forty-eight hours will do no harm, and we want that bowel to be clear of fecal matter, of the disease germs which they harbor and of everything that favors their growth. Hence the "clean-out" with calomel, *et al.*, and antisepsis with the sulphocarbolates. Hence, also, the restricted diet.—Ed.]

SUMMER DIARRHEA

You invite the "family" to give their experience in bowel troubles, especially summer diarrhea and cholera morbus. Now in order to use the remedies that I do someone will have to lay aside his prejudice against homeopathy.

I noticed that someone advised cuprum arsen. (copper arsenite) in 1-1000 to 1-5000 grain doses, dividing by putting a grain in solution. This is an excellent remedy where there is much cramping and colic with loose stools accompanied with nausea and vomiting. But why not use the 3x homeopathic preparation; in this you have 1-1000 grain in each tablet triturated with

sugar of milk. It is in a palatable form, exact dosage, and the results are certain and speedy. Then when the stools are green do not forget the old standby, ipecac. Use the 3x here too. If there is much prostration and weakness try arsenic 3x. When there is extreme prostration with coldness and rice-water stools don't forget camphor, 10 drops of the tincture in half a glass of water, a teaspoonful every ten minutes.

Now, when you get homeopathic remedies, do as you do with alkaloids, "get the best." Boerike and Tafel are standard for these goods just as Abbott is for granules.

H. M. Holverson.

Boise, Ida.

TREATMENT OF DIARRHEA IN YOUNG CHILDREN

My own customary treatment of diarrhea in children under six years of age may interest some of The Clinic readers:

1. Calomel .....gr. 1
   Sodium bicarbonate.....grs. 3
   Milk-sugar .....grs. 5

Divide into three powders. Directions: One every half hour. Take *all* three.

2. Bismuth subnitrate.....drs. 2
   Chalk mixture.....ozs. 2

Directions: Give one teaspoonful *after* each bowel action.

3. Zinc sulphocarbolate, gr. 1-2. Dispense 30 granules.

Label: One granule each half hour, beginning tomorrow morning.

4. For diet: Cold water, freely, and orange juice for first thirty hours. Allow *nothing* else; and insist upon this. Be sure to insist on observance of diet and on *getting down* the zinc granules.

Result of this method has been that out of 140 children so treated in fifteen months there has been not a single death. If they bring the child to me again no better nor worse I assume that the diet was not followed and refuse to do more for it, speaking almost brutally until I impress the parents that they *must* mind.

That note on tuberculsis by Dr. Waugh is fine! So is everything else Waughesque. I want to shake hands with him when I come to Chicago.

V. M. Pinkley.

Juanojuato, Mex.

THE TREATMENT OF DIARRHEA

Most physicians have drifted into certain lines of treatment which, on the whole, have given them the best results. It is strange that all do not have the same success with the identical treatment, nevertheless that is true. The following is the best procedure I have found for diarrhea. I will take up the remedies in alphabetical order.

Alstonia constricta (powdered), 2 or 3 grains every three hours in diarrhea from general debility or excessive heat during summer. Also of value in lienteric diarrhea.

Calomel in small doses and frequently repeated until purgation in bilious diarrhea.

Castor oil in large doses until the alimentary canal is thoroughly cleaned out for diarrhea caused by overeating.

Dilute hydrochloric acid in one-drop doses every one or two hours when the tongue has a white, pasty, rotten-looking coat, in sour-smelling children, sour vomiting and sour stools. I am aware that some would consider an alkali indicated here, but the acid gives me far better results and much quicker.

Dilute hydrochloric acid used as above and 2 grains of pepsin at meal-time for lienteric diarrhea.

Tincture of opium, 10 drops every four hours, alternated with lead acetate, 2 grains every four hours, when there is a little or much blood in the stools. Reduce the size of the dose as soon as condition is under control. This is Osler's treatment for hemorrhage in typhoid fever, and I have found it good in various forms of diarrhea with or without hemorrhage.

Myricin, 1-2 grain, with bismuth subnitrate, 5 grains, every two or three hours, when an astringent is needed in the subacute stages and in mucous diarrhea.

Plantago major, 4 ounces of the leaves infused for fifteen minutes in one gallon of hot water, then filtered, when given in enema is of much value in all cases where an as-

tringent, analgesic, hemostatic or antiseptic is needed. It is of great value to tone up the parts, relieve pain, stop hemorrhage and reduce inflammation.

Zinc sulphocarbolate is of value in diarrhea when the stools have a foul odor. In my opinion this is caused by inactivity of the liver, indigestion and the alimentary canal not being cleaned out properly. Such condition may need papain, hydrochloric acid or calomel, also saline laxatives.

Personally, I have never seen any brand of zinc sulphocarbolate that the stomach would tolerate when given alone in doses large enough to have any influence. Again, zinc sulphocarbolate is a drug which, when given alone, in my hands acts similar to salol and bismuth .subnitrate. I do not observe much effect from either one of these three remedies when given by themselves. But they may be combined, as did the late Dr. Ben H. Brodnax, 2 or 2 1-2 grains each of the zinc salt and salol, and 4 or 5 grains of the bismuth. One such dose given every hour until three are taken, then every two hours until three more are taken, then every three hours as long as needed, has very good effect and will soon improve the odor of fetid stools.

Zinc sulphocarbolate, one ounce to a gallon of hot water, given by enemata, is of value in many forms of diarrhea, especially when a local antiseptic is needed.

I am aware the editors of CLINICAL MEDICINE will not agree with this treatment, but I give my own satisfactory experience.

JOHN ALBERT BURNETT.

Havana, Ark.

—

[Alstonia constricta is another vegetable remedy which is highly praised by our eclectic brethren and which seems to deserve further study. It is an Australian shrub and both the inner and outer bark are used in medicine, the former as an antiperiodic, the latter in the treatment of rheumatism. The remedy has especially been praised for its value in malaria; Locke says it is most valuable in the chronic form though Hesse attributes to one of its alkaloids, alstonidine, properties similar to those of quinine. Three alkaloids have been found present, alstonine, porphyrine and alstonidine, and the plant probably contains other proximate principles. Its use in diarrhea seems to be restricted to cases of malarial origin—which may explain Dr. Burnett's success with it in Arkansas.

From our point of view the tincture of opium with acetate of lead while, often undoubtedly serviceable, is rather old-fashioned and undependable—and unscientific. Bleeding from the bowels means erosion or ulceration, which again usually means the presence of a local irritant. The first thing to do, therefore, is to get rid of this, which may be done by complete emptying of the bowel with a saline laxative, a high colonic washing with normal-salt solution, followed by the zinc sulphocarbolate enemata which the doctor suggests, as an astringent and antiseptic. If there is tenesmus after this, with frequent stools, then the opium (better morphine) may be given (internally or locally, or both), though quite often atropine alone will give relief. Rest to the bowel and asepsis are the indications.

Dr. Burnett's experience with zinc sulphocarbolate as well as with salol and bismuth subnitrate is somewhat surprising. In our experience, as well as in that of most physicians, we think, all three of these remedies have quite decided effects when given in proper dosage in properly indicated cases. Once in a while we find a case in which the zinc salt causes gastric disturbance, so we usually prefer to administer the combined sulphocarbolates with bismuth and aromatics, which is well tolerated—and quite the most effective preparation of its kind.

Fortunately, contributors to CLINICAL MEDICINE do not have to agree with us. We are always ready to "hear the other side" and anxious to profit thereby.—ED.]

SUMMER DIARRHEA

You ask for short articles on the summer diarrhea of children, and while I am not in the habit of rushing into print with my ideas I cannot resist the temptation to say something on this occasion.

Since adopting the "clean-out and keep-clean" treatment, about six years ago, I have lost one single case of this kind and that was a six-weeks' old baby who had been sick with enterocolitis for a week before I saw it.

Of course we cannot treat all cases alike, but my treatment for the majority of these cases may be outlined about as follows, remembering that the doses must be adjusted to age and condition:

I begin with calomel, 1-10 grain, every hour till 1-2 to 1 grain is given and follow with castor oil and high colonic flushings till I have the bowel thoroughly empty and clear.

Then I give the sulphocarbolates, as an intestinal antiseptic, gr. 1-2 to 2, and copper arsenite, gr. 1-1000 to 1-500, in solution, every two or three hours.

Strychnine arsenate and atropine, one or both, are administered, as indicated.

Sponge thoroughly two or three times a day with magnesium sulphate, oz. 1; carbolic acid, drops 20; water, pints 2, to keep the skin acting properly.

Keep up colonic flushings as indicated. Morning dose of saline laxative to flush bowels. Starve the patient for twenty-four to thirty-six hours and then feed on albumen water, meat broth, and barley water, allowing *no milk* or solid food.

Now, while this may be crude and unscientific and not as good treatment as our city brothers would use, it brings results and that is what counts in this "wild and wooly West."

Success to THE CLINIC.

G. W. H. MOORE.

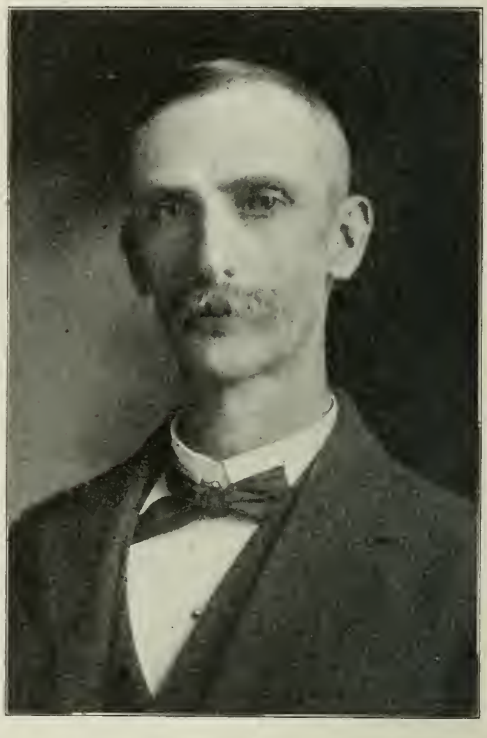
Almira, Wash.

APPRECIATIVE—AND APPRECIATED!

I very much admire the vim and talent so vividly portrayed in CLINICAL MEDICINE. I appreciate greatly the large store of valuable information garnered therefrom in a rather brief period. In your brilliant articles you are supplying excellent nutrition for the upbuilding of the medical profession.

The alkaloids are prime "ammunition" and the man who is equipped with them should have his name recorded on the page of the progressive, in the annals of the century.

The veterinarian (which I am) is placed at a disadvantage as compared with his brother in human practice, there being no



J. HOUSTON WISE, V. S.

subjective symptoms to aid him in his investigation of disease. Obscure and rare affections occasionally require repeated examinations to interpret their symptoms so as to diagnose them correctly, without which diagnosis the veterinary surgeon is placed in an awkward position.

Nothwithstanding the forward movement in the elaboration of pharmaceutical preparations the old-time remedy, spiritus frumenti, is surely a superlative medicine, and in the writer's opinion it is very questionable whether there is any known medicament which can possibly take its place. Would it be dealing justice to deprive mankind of so important a medicinal agent because it is sometimes misused? Why not discard opium or carbolic acid?

In the good old times many of our worthy forefathers praised the wine panacea for various ills, and they were blessed with many years of vigorous health. I recall one happy family of this class, which was noted for its generous hospitality. When one of the daughters, afflicted with some mysterious disease, departed from this life at the age of 78 years and nine months, the parents were not surprised, for they said she was always delicate and they never expected to raise her!

I should be pleased to hear from the poetical nurse again.

J. Houston Wise, V. S.

Time, Pa.

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[We are pleased to hear from a brother in such a closely allied profession as that of veterinary medicine—and his praise and appreciation are pleasant indeed. I am not sure that he isn't wrong on one point, however. Perhaps it is an advantage *not* to have to listen to the long-drawn out recital of the symptoms of disease, which too often is misleading and confusing instead of being a real help. If the doctor had to make *physical* search for the nature of ailments, instead of relying on a more or less elongated "say-so," the probabilities are that he would do better work in very many, many cases.

As to the alcohol question, looking at it from the standpoint of the clinician, we must say that we believe there are better remedies than alcohol for every condition in which it is administered, in spite of Dr. Wise's report of a remarkable case of longevity.

The "poetical nurse," being a woman, should need no second invitation to speak for herself. However, we "jine."—Ed.]

TUBERCULOSIS—AUTOMOBILE

I was particularly impressed with Dr. Wm. F. Waugh's article in the January number of Clinical Medicine, entitled "How I Treat Pulmonary Tuberculosis." I believe if every doctor in the land would read it once a week—learn it by heart if necessary—and treat his cases accordingly, that pulmonary tuberculosis would soon be on the wane in this country.

In a recent issue you called for information about automobiles. I enclose a photo of my Reo roadster. This picture was taken at Hahn's old mill near Winchester on the Valley Pike—which is the scene of Sheridan's famous ride through the Shenandoah Valley. I consider the Reo the ideal doctor's car. It has never failed me. Six miles of mud or

Dr. Robert McC. Glass, Winchester, Va.

snow is nothing to a Reo, and I have always "got there and got back" with no other power, save that of the Reo engine. Am sorry I'm too late for the July number, but perhaps you can make use of this at a later period.

I appreciate greatly the value of The American Journal of Clinical Medicine.

Robt. McC. Glass.

Winchester, Va.

"IN A DELICATE WAY"

As numerous funny incidents occur in the course of a physician's practice, as referred to by one of your correspondents, I will relate one that occurred in my early practice. I had been called out of town one cold wintry day, and was detained until evening and was urgently requested to see at once an old lady *ninety-one* years old, who had sent for me early in the forenoon, and refused to tell her daughter her reasons for wishing me to be sent for.

On my arrival the members of the family were all agog. I found her in a very perturbed state of mind. She requested me to draw close to her, when she confided to me that she "had not seen anything for six months," and did I suppose that she was "in a delicate way?"

I told her that I hardly thought it probable. She said if she was going to have a baby, she *shouldn't* want that young doctor. (That was me!)

GEO. D. STANTON.

Stonington, Conn.

ANOTHER CASE OF ANENCEPHALUS

It has fallen to my lot to deliver two women giving birth to anencephalic monsters.

The first occurred April 17, 1893, while I was practising medicine at Stewartsville,

Dr. Bynum's case of Anencephalus

Mo., and was reported in *The American Journal of Obstetrics and Diseases of Women and Children*. In that case the vault of the cranium was covered with scalp and a very light growth of hair. A small portion of brain-substance (about the size of a pigeon's brain) protruded through the scalp; this little brain was covered with what looked like the arachnoid, the bones of the head being absent above a line extending from upper part of the eyes to the top of the ears and back, The cavity of the skull below this line was filled with a substance that resembled plancetal tissue; a small medulla was present. This child lived some twenty or thirty minutes after birth.

The second case occurred May 17, of this year, in the mountains about ten miles north of Ventura. The mother, an Italian woman thirty-two years old, well developed and in excellent health, has three children, all sturdy little fellows, very bright mentally and the very picture of health. One child died in infancy. She had no miscarriages. This anencephalus was her fifth pregnancy, the period of gestation being uneventful except at about the third month, when she became frightened on account of her husband being tangled up with a team of horses he was trying to drive. I was called to see her on the 16th in the afternoon, but as there was neither dilation nor pains, I left, instructing them to phone me when necessary.

I was called again the next morning, found dilation about the size of a silver half-dollar with a soft spongy substance presenting which felt like the placenta. There was no hemorrhage, neither had there been any. There was no attachment to the uterine walls so far as I could feel. After a little while I could feel the bony portion of the skull, and soon I could feel an ear. Then the recollection of my former case came to mind and made darkness light before me. In due time the child was delivered stillborn; it had made vigorous movements not more than an hour before birth.

It was a male, splendidly developed except head; weighed ten pounds; the upper part of the skull was absent above a line running back from center of eyes to top of ears; eyes very prominent, resembling those of a frog. A mass resembling placental tissue filled the cavity below this line. This mass was covered by a membrane which I presume was the arachnoid; it was so thin that the pressure it underwent ruptured it. The substance under it contained no brain-tissue, neither could I discover a medulla.

Around and just below the juncture of the membrane and skin was a little fringe of hair.

Why Dame Nature, usually so exact in the very minutest detail, should so far forget herself as to fail in the development of such an essential organ is past understanding. While this condition is no new thing, it happens so seldom that its correct diagnosis before birth is rarely made in first cases. A knowledge of the condition would not as a rule expedite the delivery, but it would relieve the obstetrican of considerable anxiety, as it so nearly simulates in the first stage of labor that condition so dangerous to both mother and child, placenta prævia.

I did not get a photograph of my last case, but I send one of the first which is an exact representation of the last except as above mentioned.

J. C. Bynum.

Ventura, Calif.

RATTLESNAKE POISON

I have read with interest the article on "Crotalin" in the June number of Clinical Medicine. Dr. Mays cites some very instructive cases. Summing these up he says: "It is hardly too much to say that this agent belongs to a valuable group of medicinal substances *of which we know very little and the properties of which have scarcely begun to be investigated.*" The italics are mine.

After all the experiments which have been made with "crotalus horridus," in view of all that has been written on the subject, and considering the many cures which have been made with the remedy, it seems strange that Prof. Mays should know so little about it and others of the same group.

The venom of the "crotalus horridus" has been used as a remedial agent for a great many years. Exhaustive monographs have been written on its effects—one as early as 1837—and numerous cases which have been benefited or cured by its administration have been recorded. It is indeed a valuable remedy. I carry a preparation of it about with me in my pocket-case, and use it as occasion demands. It is as indispensable as the "lachesis trigonocephalus" given to the profession sixty years ago, or as the "naja tripudians," or the elaps corallinus," or the "vipera torra"—all well-known and almost daily used remedies.

Prof. Mays is doing splendid work and doubtless will tell us something worth knowing about this serpent-poison. It is to be hoped, however, that he will duly acknowledge the labors of the many before him who have successfully experimented along these same lines and who already have given us so much concerning the ophidia—crotalus horridus included.

James Arnold Boffin.

Chicago, Ill.

[Dr. Boffin refers to the researches of homeopathists, made with minute doses. Prof. Mays is using maximal doses. We are not going into a discussion of this matter, fully believing and practising the good old American doctrine of the rights of the individual to his own beliefs. In this spirit we give Dr. Boffin his say, and refer the reader to the standard works on homeopathic therapeutics.—Ed.]

EPSOM SALT IN PUERPERAL ECLAMPSIA

In the June number of Clinical Medicine is an article on Puerperal Eclampsia by D. Hugh Jameson. The editor's comment, that the case was scientifically treated—and yet the patient died—reminds me of one that I had some months ago in which the patient lived. I was called one morning to see a young colored woman who was pregnant. She complained of an intense headache. I administered hyoscine, morphine and cactin hypodermically. I had scarcely withdrawn the needle when she was seized with a violent convulsion. I put two or three drops of croton oil on the back of her tongue, she being profoundly unconscious by the time that I could obtain it. I also introduced two quarts of saline solution into the colon, but did not succeed in moving the bowels.

I noticed a plate on the table containing cow peas and hard-boiled rice. Upon in-

quiry I was informed by a colored woman present that the sufferer had eaten heartily of the rice and peas for supper. This patient had a number of hard convulsions and really seemed to be dying; the radial pulse was quite imperceptible. The hypodermic injections of strychnine, digitalin and glonoin appeared to have no effect, so I filled the syringe with a solution of camphor and introduced that into her arm. Over the heart hot fomentations were applied, also chloroform and rubefacients. Finally the pulse began to flutter in her wrist and I gave a copious enema of warm water, containing epsom salt.

As soon as the patient could swallow at all, I began administering *per os* a tablespoonful of epsom salt every fifteen minutes. She vomited several doses, but I continued giving it until she had swallowed about thirteen ounces of the salt. Her bowels then began to move and she passed from a dazed, semiconscious condition to full consciousness.

I left her at 10 o'clock p. m. The next morning she was bright and feeling fairly well and at about 9 p. m. gave birth to a large healthy baby. She had no more trouble at all after the magnesium sulphate did its work.

Sophia Brunson.

Elloree, S. C.

VERATRINE CURES ECLAMPSIA

I was very much interested in Dr. Jameson's report of a case of eclampsia in the June number of Clinical Medicine.

At 5 p. m., July 10, 1907, I received a hurry-up call to meet Dr. A. in consultation over Mrs. S. When I arrived I found a case of postpartum eclampsia in a primipara, age 30.

The following history I got from Dr. A.: The patient had been delivered of a healthy baby girl at 12 o'clock, July 9. Labor was short and easy, everything apparently normal with the best prospects of a rapid convalescence. That night she had complained of a headache but nothing was thought of it by the physician. She went to sleep and at 5 a. m., July 10, she passed from sleep into convulsions without regaining consciousness. The family physician was hastily called. She continued to have one convulsion after another every fifteen to thirty minutes, in spite of all the doctor could do. At 10 a. m. Dr. S. was called. The convulsions continued to come, never regaining consciousness between them. When I was called at 5 p. m. I found her in a severe convulsion. Her tongue was bitten badly and swollen till it protruded from the mouth. She had been given two-drop doses of Norwood's tincture of veratrum viride every hour *per os*.

I hastily made a solution of six granules of veratrine and gave one by hypodermatic injection. Her pulse dropped from 140 to 90 in half an hour, when I repeated the dose. At the end of an hour it was down to 60. I prepared a solution of veratrine and left it with the attending physician, with instructions for the physician to stay all night, giving an injection every hour, and to keep that pulse below 70, no matter how much medicine it took.

The patient had no more convulsions after the first hypodermic. She remained unconscious for forty-eight hours, however, after which she made an uneventful and rapid recovery. The other treatment used was colonic flushings, besides a saline laxative as soon as she could swallow.

On April 23, 1909, this same lady called at my office and informed me that she was seven months pregnant again. She wanted me to do something, so she would not have such a time as she did before. Her feet were swollen, and examination of the urine showed a specific gravity of 1003, reaction neutral, no sugar, but quite a large percentage of albumin.

I put her on sodium benzoate, 5 grains; veratrine, 2 granules; arbutin, 2 granules; caulophyllin, 2 granules, four times a day. On June 27 she was delivered of a healthy baby girl, with three pains, and made a rapid and uneventful recovery. Two days before her confinement her urine had a specific gravity of 1020, no albumin, no sugar. I had kept her bowels open with saline laxative.

We all have our defeats, but I naturally think that my medicine influenced the course of this lady's troubles, and that she would have died had her convulsions not been controlled by veratrine or some other agent as good or better. And I know nothing to equal veratrine. *But give dose enough;* bring that pulse down; don't be afraid. If you have dependable remedies and know their physiological action, and know what you want to accomplish, you can give them with a boldness never dared by those using the galenicals.

I have never seen veratrine recommended in cases of anticipated eclampsia, but I have used it for a number of years where there was retention of the solids in the urine, and with happy results. It seems to me to be indicated, and when the indication is present I never wait for authority or run to books. If there is no contraindication I give the drug and look afterward.

U. G. Iles.

Seneca, Kas.

PUERPERAL ECLAMPSIA

A few weeks ago I was called to assist another practitioner with a case of puerperal convulsions. The woman had been delivered of her first baby during the morning and a few hours afterward had her first convulsion, which passed off and no more occurred until the afternoon, when they began again. The doctor was telephoned for but could not be reached until late in the evening. In the meantime the patient had experienced four convulsions and was in the throes of the fifth when I and the attending physician arrived. The patient was unconscious, purple in the face, stertorous breathing and a full, bounding pulse.

My colleague began the administration of chloroform to control convulsions and turned the further management of the case over to me. My first thought was to give 2½ milligrams of veratrine hypodermically. This softened the pulse a little, but the convulsions kept on in spite of this initial dose and the chloroform. Before giving further medication hot-packs were applied, an enema of saturated solution of epsom salt was given, about one quart, and two drops of croton oil administered upon the tongue in butter.

The pulse had now become somewhat smaller, and something prompted me to make the next hypodermic one of hyoscine, morphine and cactin, full strength, instead of veratrine; which, so far as could be determined, did no good, and the convulsions increased in frequency. I then went back to veratrine and gave four granules (2 mg.) hypodermically every fifteen minutes until the convulsions ceased, which they did after five injections had been given.

I left the patient with her attendant. He gave one more hypodermic during the early morning, but no convulsions again occurred. The pulse came down to 80, the bowels moved freely, kidneys acted and the patient regained consciousness.

These cases are, undoubtedly, autotoxic at bottom, and the great majority can be averted by proper antipartum eliminative treatment. When once the convulsions occur, with the hard full pulse, veratrine is the remedy. Give it until you get the results!

G. M. Hawkins.

Seattle, Wash.

[Dr. Hawkins deserves credit. He did not let himself be stampeded by the frightful character of the symptoms and go to giving excessive doses of anything. Instead of that, he took the one remedy which is better than all others, veratrine, because it opens the elimination, doors and carries the cause of the convulsions out of the body better than any other remedy. He did not give too much, but repeated his doses in rapid succession until he got the desired effect; then stopped, the patient needing no more.

Altogether I look on this as an admirable illustration of the proper way to use veratrine in eclampsia. I have nothing to say against veratrum viride, only that as it originally comes from the manufacturer the strength necessarily varies according to the activity of the plant from which it is made; and that, as in all liquid preparations of vegetable

drugs, a steady decomposition deteriorates the alkaloidal strength on the one hand, while the evaporation of the menstruum tends to increase it on the other, the result being an uncertainty. And surely if there is any disease in which uncertainty is unpardonable, while certainty is available, it is eclampsia. All the benefits of veratrum viride can be secured from veratrine, which is certain, uniform, and does not deteriorate after being made into granules or hypodermic tablets. Curiously enough, the greatest obstacle in the way of veratrine is the excellence of the results secured from veratrum. They are so good, so much better than those secured by any other method of treatment, that it is difficult to persuade the average physician in such an emergency to even try another remedy; which is very natural when you come to think of it.

Other physicians have reported control of the convulsions, in similar cases, by the use of the hyoscine-morphine combination. It certainly "works" and, as an emergency remedy in this terrible complication of the puerperium is unexcelled. Its combination with veratrine, as used by Dr. Hawkins, is rational and should be eminently satisfactory.—Ed.]

PUERPERAL INFECTION: ECHINACEA

By the term puerperal infection we understand the various morbid conditions of the female genital tract, and the acute systemic affections, caused by various microorganisms, during labor or the puerperium. The infections are generally known by such terms as puerperal fever, endometritis, peritonitis, phlegmasia alba dolens, and others.

All these diseases and conditions, from a local inflammation to the most fatal peritonitis, are well defined by the term puerperal infection. But sometimes the nurse informs me that the cause of illness is the retention of the lochia, "catching cold." But an experience of more than twenty years of practice has never proved this to be so. I consider the puerperal woman to be in extremely little danger of disease, except from infection, and this may be prevented.

The best treatment is prevention. But when we come to the curative treatment of puerperal sepsis we have to deal with a question about which there is still a great deal of dispute. In puerperal endometritis, after having removed lochia, curetted, or not, and the uterus douched with hot sterile water or various antiseptics, and cleaned up, if the infection is not yet controlled then echinacea given internally to dose enough is the successful remedy in my hands. Also calcium sulphide to saturation in those putrid, foul-smelling cases. Strychnine or alcohol for stimulation till the combined action of the (in my opinion) two best drugs known, viz., echinacea and calcium sulphide—both given to saturation—cures the patient.

The echinacea and calcium sulphide are the best curative internal remedies for milk-leg, and, further, in all puerperal infections echinacea is the best curative remedy yet made known. I am not writing from hearsay, but from my own successful work with these two drugs.

Case 1. Mrs. N. C., age 24. Acute peritonitis, typical attack, fourth day after confinement. Temperature 104.5°F.; pulse in runs and extremely fast; respiration 36; great delirium; skin of deathly pallor, with dashes of perspiration; body swollen till shaped like a barrel. The attending physician had, no doubt, applied the treatment of the textbooks and only held life a little longer with alcohol and strychnine, while it was visible to all that the patient was sinking with septic poisioning. It seemed as though treatment of any kind were useless.

I put the patient, first, on an extremely large dose (4 ozs.) of magnesium sulphate, to be followed in half an hour by the intestinal antiseptic of the combined sulphocarbolates, dose repeated every hour, day and night, prescribing at the same time full dosimetric doses of echinacea, to be repeated every hour day and night. Also calcium sulphide, frequently administered to saturation, and in addition strychnine for stimulation. Next day I found temperature lowered and better pulse. On the fifth day the patient was dismissed with an order for

full doses of triple arsenates and nuclein, and small doses of echinacea continued.

Case 2. Abortion, retained placenta, infection — endometritis. Septic absorption that was not controlled by curetting and antiseptic douches; finally developed milk-leg in both legs at the same time. Treatment consisted in turpentine embrocations and hot-packs applied to the femoral veins, for relief of pain, and echinacea and calcium sulphide, both to saturation. To my surprise this aborted the milk-leg and cured the patient of all her septic conditions.

I think strychnine has no antiseptic action in the system. The tincture of chloride of iron is the surest curative remedy in erysipelas; but it acts too slow in those dangerous cases of puerperal infections to save life. Alcohol is the most powerful remedy among the stimulants, but it requires an enormous amount to control the disease. Years ago I treated those systemic cases of puerperal infections with alcohol in the form of proof whisky. The largest amount I ever gave was a half gallon proof whisky in twenty-six hours, without causing intoxication or damage to the system; but it completely controlled the septic conditions. This is true of many other cases similarly treated with alcohol, but I find echinacea to be a much more powerful and reliable curative remedy than anything else in puerperal infections.

I. W. Mayers.

Speechwell, Tenn.

ESPERANTO FOR PHYSICIANS

The Degrees of Comparison

When we compare the quality of one object with that of another or others, we find that it may be equal, superior or inferior to that of the others.

These comparisons are rendered in Esperanto as follows:

Comparative of equality: *tiel* (as or so) . . . . *kiel* (as). E. g., The fingers are as numerous as the toes (foot-fingers), *la fingroj estas* tiel *nombraj* kiel *la piedfingroj.*

Comparative of superiority: *pli* (more) . . . . *ol* (than). E. g., The eye is more sensitive than the skin, *la okulo estas* pli *sentema* ol *la dermo.*

Comparative of inferiority: *malpli* (less) . . . . *ol* (than). E. g., The spleen is smaller (less large) than the liver, *la lieno estas* malpli *granda* ol *la hepato.*

Superlative of superiority: *la plej* (the most) . . . . *el* (of, out of, among). E. g., The femur is the longest (out) of the bones, *la femurosto estas* la plej *longa* el *la ostoj.* (Note: *femur* in Esperanto means "thigh;" "thigh-bone," therefore, is *femurosto.*)

Superlative of inferiority: *la malplej* (the least) . . . . *el.* E. g., (The) hydrogen is the lightest (least heavy) of the gases, *la hidrogeno estas* la malplej *peza* el *la gazoj.*

Superlative absolute: *tre* (very); *tro* (too); or *plej* (most). E. g., Neuralgia is a very painful (pain-causing) disease, *la nervdoloro* (or *neŭralgio*) *estas* tre *doloriga malsano;* that splint is too large, *tiu splinto estas* tro *granda;* it is most annoying, *estas* plej *enuige.* (Note the adverbial form of *enuige,* there being no noun or pronoun with which an adjective could agree.)

Superlative of possibility: *kiel eble, plej* . . . . (i. e., as possible, most. . . . .) E. g., It is as strong as possible, *ĝi estas* kiel eble, plej *forta.*

The comparison of adverbs follows the same lines. Thus: The pulse beats as quickly as the heart, *la pulso batas* tiel *rapide* kiel *la koro;* (the) light travels more quickly than (the) sound, *la lumo vojaĝas* pli *rapide* ol *la sono;* he coughs today less severely than yesterday, *li tusas hodiaŭ* malpli *severe* ol *hieraŭ;* she sings best of all, *ŝi kantas* plej (or *la plej*) *bone* el *ĉiuj;* it occurs least often of all defects, *ĝi okazas* la malplej *ofte* el *ĉiuj difektoj;* dress the wound very gently, *pansu la vundon* tre *malsevere;* do not come too early, *ne venu* tro *frue;* it is most pitiful, *estas* plej *kompateme;* fetch (make to come) a doctor as soon as possible, *venigu kuraciston* kiel eble, plej *frue.*

Other comparative forms are:

ju pli . . . des pli = the more . . . . the more.

ju malpli . . . des malpli = the less . . . the less

Of course, the converse of these propositions are:

ju pli . . . des malpli = the more . . . the less

ju malpli . . . des pli = the less . . . the more.

E. g., The more he eats (will eat) the more he will improve, ju pli *li manĝos*, des pli *li pliboniĝos;* the less we sleep, the less we feel the need to sleep, ju malpli *ni dormas*, des malpli *ni sentas la bezonon dormi;* the more we rest, the less we need to eat, ju pli *ni ripozas*, des malpli *ni bezonas manĝi;* the less I eat, the more I drink, ju malpli *mi manĝas*, despli *mi trinkas*. (Note: *trinki* refers to the act of drinking; *drinki*, to the drinking of intoxicants. To say of a man *li drinkas*, is the equivalent of what we should mean in English if we said of him, "he drinks." When we mean "he is drinking," we say, *li trinkas*.)

EXERCISE V

Translate into Esperanto:

The hand is smaller than the foot (*piedo*). —(The) blood (*sango*) is thicker (*dika*) than (the water (*akvo*).—The muscles (*muskolo*) are less strong than the bones (*osto*).—The white (*blanka*) cells (*ĉelo*) of the blood are less numerous (*nombra*) than the red (*ruĝa*) cells, but they are larger.—The lymph (*limfo*) flows (*flui*) more slowly (*malrapide*) than the blood.—(The) smell (*odoro*) is the least important (*grava*) sense (*sento*) to (for) man.—The more we have (*havi*), the more we want (*voli*, to wish for).—The less the wound pains (*dolorigi*) him (*li*), the less he wishes (*voli*) to remain (*resti*) in bed.—The more we get used (*kutimiĝi*) to anything (*io*), the less we mind (*prizorgi*) it (*ĝi*).—The less we think about (*pripensi*) a thing, (*afero*), the more indifferent (*indiferenta*) we become (*fariĝi*) to (concerning) it.

(Note: The Esperanto words are given uninflected. The student should make the inflections as required by the grammatical rules. The English words in parentheses are the words to be translated into Esperanto.)

Numbers

To the physician accuracy in regard to numbers is of supreme importance, lest dangerous, even fatal. mistakes should occur. This must be our justification for devoting seemingly more than a due amount of space to them.

CARDINAL NUMBERS

The cardinal numbers are: *Unu* 1, *du* 2, *tri* 3, *kvar* 4, *kvin* 5, *ses* 6, *sep* 7, *ok* 8, *naŭ* 9, *dek* 10, *cent* 100, *mil* 1000.

The numbers from 10 to 20 are formed by following up *dek* (10) with the required numeral. E. g., *dek unu* 11, *dek du* 12, *dek tri* 13, *dek kvar* 14, etc.; that is to say, ten (and) one, ten (and) two, ten (and) three, etc.

The tens (multiples of ten) from twenty to a hundred, are formed conversely by prefixing to *dek* the required numeral, thus: *dudek* 20, *tridek* 30, *kvardek* 40, *kvindek* 50, *sesdek* 60, etc.; that is to say, two tens, three tens, four tens, etc. The intervening units between the tens are simply affixed, as in English, thus: thirty-one, *tridek unu;* forty-two, *kvardek du;* fifty-three, *kvindek tri*; sixty-four, *sesdek kvar*, etc. The multiples of a hundred and a thousand are formed as are those of the tens, thus: *kvar cent*, four hundred; *sep mil*, seven thousand.

The cardinal numbers themselves, when used adjectivly, are indeclinable. Thus, one man, *unu viro;* six men, *ses viroj;* seventeen persons were present, *dek sep personoj ĉeestis;* my house has thirteen rooms, *mia domo havas dek tri ĉambrojn.*

Nulo (0), a cipher, *cento*, *miliono*, are nouns, however, and consequently can be inflected. Moreover, the cardinals can be made into nouns by adding the noun terminal, *o*, thus: *unuo*, a unit; *duo*, a duo, a couple, the deuce (at cards); *trio*, a trio or triplet; *dekduo*, a dozen; *dudeko*, a score, etc. These nouns are followed by the preposition *da* (of) when the articles they refer to are named, as: I have a dozen (of) oranges, *mi havas dekduon da oranĝoj.*

ORDINAL NUMBERS

The ordinal numbers are simple adjectives, and consequently are formed in the

usual manner by affixing the adjectival *a* to the cardinal, thus: *unua*, first; *dua*, second; *sepa*, seventh; *dudeka*, twentieth; *kvardek-kvina*, forty-fifth; *cent-dudek-tria strato*, one hundred (and) twenty-third street. Note that, as in English, only the last numeral of the complete term takes the adjectival terminal, and that the component parts of compound *ordinal* numbers are hyphenated.

Numeral adverbs of order are similarly formed by adding *e* to the cardinal, e. g., *unue*, in the first place; *kvare*, fourthly, *dek-kvar-e*, fourteenthly.

The composition of numbers is effected by placing them in simple juxtaposition; one hundred (and) six, *cent ses;* two hundred (and) forty-seven, *du cent kvardek sep;* 1899, *mil ok cent naŭdek naŭ.* The two hundred and fifty-seventh anniversary, *la du-cent-kvindek-sepa jarfesto.*

(*To be continued*)

"LIME-HUNGER"

In the July number of CLINICAL MEDICINE appears a note on Addis' article controverting Wright's method of obtaining the coagulation point of blood, as published by him in a previous paper, in which he explained the therapy of lime salts. I would venture to state that few can teach Wright's technic, his original work on opsonins, verified by workers the world over, being the basis for the statement.

However, the differences of the laboratory workers need not trouble the clinician greatly. They are frequently the measure of the "personal equation," sometimes a mere overplus of personality.

What the clinician wants is the results obtained in treatment. When a large number are reported, a basis is obtained for obtaining the true value of the drug or the method under examination. We all should contribute to such investigation and thus do our little in making medicine a science and art respected by all.

A few months ago H. S., aged 10 years, was brought to me suffering from urticaria. He had been afflicted for a week and the itching was preventing sleep. Three months before he had had typhoid fever. His mother had suffered from purpura severely. A sister also had been similarly attacked. The skin was bathed in saleratus water, and 10-grain doses of calcium lactate were administered after meals for three days. The urticaria disappeared after the second day and has not troubled him since.

Of course nothing is known of the absolute condition of this boy's blood, but the family

Dr. O. A. Grantham and wife, Johnstown, Colo., in his (or their) automobile

history shows blood in which the coagulative power is diminished (purpura).

Urticaria is common enough and THE CLINIC brethren can determine the value of calcium in this trouble. The etiology of each particular case ought to be gone into and reported, inasmuch as this makes the report more valuable by helping to determine the actual conditions amenable to treatment.

EDWARD A. TRACY.

Boston, Mass.

"SELF-KNOWLEDGE"

As a rule publishers are extremely shy regarding the bringing out of philosophical papers. All that is not physical does not pass the index. It is very funny to watch this prejudice at work. The book-buyer may not understand what he buys, he will justify the prognosticon of the publisher, and the prestige settles the trade.

As a matter of fact, it must be admitted that philosophical subjects are little favored

by the public at large. But is all the fault of the reader? Does there not go of the fault to the writer? Philosophy is too much metaphysical gossip, and science neither here nor there. What we want in philosophy is the maxim of natural science, to be unscrupulous in *the exploration of the true condition of things*. There is many a good beginning, plain and straightforward. In Butler's "Hudibras" we come across a definition of the soul and body which is most excellent. There has never as yet been a better one. He calls the bodies of the things their *outwardness*, and in direct contrast thereto, the mind, or the soul, or the spirit, their *inwardness*.

Metaphysical fatuity alone can pretend to know a better definition of soul and body. But it wants the complement which I supply. In my epitome, "Self-Knowledge, National and Personal," I say, bodies are only such objects as touch our body likewise bodily. The soul, or the spirit, or the mind, can not touch us but mentally; or spiritually, or by the soul, be it directly or indirectly. These facts are irrefragably true, but draw after them a consequence which many a sentimental explorer may call a startling proposition. It is the thesis, that *detail, difference is found only in the bodily world;* the spirit, or the soul, or the mind. *never admits either detail or difference.*

But why a startling proposition? There are other propositions in my booklet which might be called startling. I consider them perfectly harmless. One is, that *the center of the bodily world*, or *a* center of the bodily world, *is an absolute impracticability*. Enterprising students made strenuous efforts to come nearer the center of the world, if not by more than inches. It was a failure. The laziest Teuton, on the contrary, in his mind, can enjoy the center of the world, without any exertion. For in the spirit, or the soul, or the mind, the world's center is, and can be, enjoyed freely.

Furthermore, a startling proposition in my booklet is, for people who like to be startled, that *a totality there is only in the mind*, or soul, or spirit. The bodily world is everywhere a world of fractions, and these, again, are totally absent in the mind, or spirit, or soul.

Is not this a plain exposition? Is there anything remaining in doubt in soul or body? But there are persons who are so stuck by the old-fashioned metaphysics with the body in one coat-pocket and the soul in another, that it is no use trying being plain. For them another proposition may be drawn from my booklet. It is the warning that in the brain it is not the brain which rules, but the will, and that, if the philosopher does not want wisdom, he is sure not to acquire it. All this we will enlarge upon some other time.

C. A. F. Lindorme.

Atlanta, Ga.

BACILLUS BULGARICUS

Experiments have established the fact that the bacillus bulgaricus may be used with great success in the treatment of stomach and intestinal diseases. In autointoxication the results have been remarkable. The germ has the ability of destroying most of the bacteria found in the intestines, as has been demonstrated very satisfactorily by "culture." The bacillus proteus, bacillus coli, bacillus pyocyaneus and others do not survive very long in the presence of this destructive organism, nor is the bacillus typhosus an exception to its ravages.

The author had under his care a case of gonorrhea of long standing. Having used without much success all the remedies so highly recommended, he finally concluded to try injections of a suspension of the bacillus bulgaricus. In a very short time the urine gradually became clear until after a few weeks the gonococci were no longer present. The bacillus bulgaricus seems to be highly valuable in the treatment of the diseases above mentioned, and is best used in a "suspension," owing to a tendency to lose its virulence when kept in a dry or powdered form.

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CLINICAL · MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

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PART II—LESSON NINE

RESTORATIVES AND ALTERATIVES (Continued)

Neutral Salts.—When you come to deal with the compounds of these bases with inorganic acids, you have something quite different, physiologically, from either the base or the acid. The neutral salts have an action of their own, entirely different from that of their components.

Ammonium Chloride is a drug which is largely employed, but its mode of action is still obscure. It is sometimes given in large doses—20 or 30 grains at a time—for abscess of the liver. You will find different statements in regard to its effect in this condition, and you can hardly expect that ammonium chloride would cause a large abscess to disappear from the liver; but in commencing abscess of the liver, where you are quite certain that there is hepatic congestion, and where there may even be more than this, where you have a very strong suspicion that an abscess has formed, ammonium chloride in large doses, especially if combined with rest in bed and a milk diet, has really sometimes quite marvelous effects.

Ammonium chloride is a fairly useful remedy in cases of neuralgia and in myalgia. In sciatica and other neuralgias, in the very common and troublesome form of myalgia known as lumbago, doses of 10 or 20 grains of this drug are quite efficacious. It is a useful remedy for gout. Sometimes you will find that by its administration the deep depression of the spirits which frequently occurs in gouty people may disappear.

This drug, however, has a very disagreeable taste which it is hard to cover, and very many people object strongly to it. A good agent to correct this bad taste is the liquid extract of licorice. However, the elixir of saccharin I think is the best of all. Adding 5 drops of the elixir to every 10 grains of ammonium chloride in solution is perhaps the best way of administering it. Saccharin and glycyrrhizin presumably might be advantageously combined.

Sodium Chloride is naturally a very important remedy, because it is a most important article of food. There are a number of people who will not drink; they are not thirsty, consequently their urine becomes excessively concentrated so that without the presence of any abnormal constituent you may find it running up to 1030 whereas it ought only to be 1020. You advise them to drink, but your advice is of no use. Sometimes, however, you can effect your purpose by advising that they ought to use more salt with their food, and the natural consequence

of this is that they will drink more water. If you tell them to take more salt with their food, they will do so and drink more water afterward, because it will make them thirsty. In this way they flush out their tissues and improve very greatly.

Calcium Chloride has an action of very great importance in that it determines the coagulability of the blood. Where bleeding has already occurred, as, for example, in bleeding from the stomach or from the bowels in cases of ulceration, you may give calcium chloride. It frequently happens that you are unable to give it by the mouth, because you cannot run the risk of exciting vomiting. In such cases and in ulcer of the stomach, if you are feeding the patient by the rectum, you may add calcium chloride to the enemata. In some cases of typhoid fever, I believe, the lime water so commonly used to increase the digestability of the milk has the added action of tending to lessen the chances of hemorrhage from the bowel. For that reason, among others, I am inclined to prefer lime water for admixture with milk in typhoid-fever feeding.

In cases where hemorrhage already has occurred, you may give lime water more freely. Sometimes when you wish to give lime along with the milk, without diluting the same too much, you may use the saccharated liquor calcis in place of the ordinary liquor calcis of the pharmacopeias. The sugar renders the lime more soluble, and in consequence of this you can get a solution nearly fourteen times as strong as ordinary lime water and which may be added to the milk without diluting it unduly.

Action of Bases Recapitulated.—I shall briefly enumerate again the characteristics of the bases.

Ammonium is a powerful stimulant.

Sodium is more or less indifferent, as you would well imagine from the large amount of soda in the body; because the small amount of soda that is added to the body in any medicine that you give is but slight, it alters very little the proportion of soda in the body.

Potassium acts as an alterative, especially in cases of gout and rheumatism, and has to a certain extent the effect of weakening the heart, weakening the muscles, lowering the blood pressure, and acting as a diuretic. But the weakening effect upon the heart and the muscles is only perceptible when large doses are employed, and rarely comes into consideration from the ordinary medicinal doses.

Lithium is employed chiefly in cases of gout, in order to render the deposits of urates more soluble. The urate of sodium is an insoluble salt; urate of potassium is more soluble; urate of lithium is more soluble still. Thus lithia is frequently prefered to potassa in the treatment of gout, although here, as you will find if you read the researches of Dr. Haig, there seems to be a good deal of doubt as to whether lithia really does remove uric acid from the body as much as does potassa.

Magnesium is chiefly serviceable, first of all, on account of its being sparingly soluble, so that if you give it as an antacid only so much of it is used as is required to neutralize the acid in the stomach, and you cannot render the stomach very much too alkaline by it. Its chief importance consists in the salts which it yields and the ease with which some of the magnesia is converted into salts in the stomach and intestines, and which always have a laxative action.

Calcium, on the other hand, instead of being a laxative is an astringent throughout —an astringent to the skin, mucous membranes, and to the intestine. It tends to increase the coagulability of the blood, to harden the tissues, and to render the heart more powerful and blood pressure higher.

Alkalis and Serous Extravasations.—Dilute acids cause relaxation of the muscular substance, both of the heart and blood-vessels, while dilute alkalis have an opposite effect and cause contraction. Under the influence of alkalis the vessels contract, the flow of fluid out of the veins becomes scanty, no edema is observed in the tissues. Dropsy depends on the quantity of lymph effused from the blood-vessels being greater than the veins and lymphatics can carry away. This may depend either upon obstruction to the veins and lymphatics, or excessive exudation from the blood-vessels. The veins and

lymphatics in the normal condition are able, however, to carry away so much more fluid than is effused from the capillaries, that, unless the obstruction to them is very great indeed, no edema occurs as long as the capillaries are in their normal condition. In almost all cases of dropsy, then, we may consider that the capillaries are so altered as to allow a greater amount of transudation.

The exact nature of the alteration we do not know fully, but such experiments as we have on the subject tend to show that acids, or substances having an action upon the vessels similar to that of acids, may have very much to do with this effect. Alkalis neutralize this acidity in the blood, and this may be one reason why they are so active in overcoming dropsical conditions. Something will be said later on the value of alkalis in overcoming acidemia or acidosis.

Therapy of the Alkalis.—We will now take up more specifically the therapeutics of the various alkalis.

There is one drug which is perhaps more used in gastric disorders than any other, namely, sodium bicarbonate; and the way in which it is to be employed varies according to the results that you wish to obtain. If you put into the stomach 10 grains of sodium bicarbonate, what will happen? Ten grains is a small quantity, and if you put this into a full stomach where there is a large amount of gastric juice it will simply be neutralized by the gastric juice and will neutralize a corresponding quantity of gastric juice. You will not get very much effect from such a small quantity. If, on the other hand, you put 10 grains dissolved in water, along with a bitter, into an empty stomach, the result will be quite different. Then it has a clear field and passes over the whole mucous membrane of the stomach and it excites secretion of gastric juice; so that if you give these small quantities of sodium bicarbonate, not less than a quarter of an hour, or better half an hour before meals, the secretion of gastric juice is brought about. When the food reaches the stomach it meets gastric juice ready to digest it, and digestion goes on normally. The formation of butyric acid and its congeners and the putrefaction of the food are prevented; and thus you frequently find that this simple remedy stops severe dyspepsia, so called.

The appetite is closely connected with the circulation of the blood in the stomach. You can readily understand that if there is an obstruction to the circulation of venous blood from the stomach, you are likely to have the appetite interfered with. It is valuable to remember that all the blood in the stomach has to pass through the liver before it can get back into the general circulation. The blood passes up from the stomach through the portal vein and on through the liver into the general circulation; then it has to pass through the portal circulation, and if the liver presents any obstruction to the flow of blood through it, you can readily understand that you are likely to get a certain amount of venous congestion in the stomach.

During digestion the liver-cells are very full, and I cannot see that they can do otherwise than press upon the capillaries, and thus lessen the passage of blood from the stomach through the liver. Whether it is by diminishing the obstruction to the flow of blood through the liver or not I cannot definitely tell you, because here we are trenching upon the boundary line between fact and fancy. Yet, as a matter of fact, you will frequently find patients who complain of great loss of appetite and inability to take food, who will regain their appetite if you give them a calomel purgative at night followed by a good dose of saline laxative in the morning. Then sodium bicarbonate, together with some bitter digestive combination, may be given before meals to stimulate gastric secretion. A good combination is one containing strychnine arsenate, quassin, juglandin and papain.

Let us remember that if the stimulating effect on the gastric secreting organs is required, sodium bicarbonate should be given before meals. The first effect is to render the gastric contents alkaline; this is gradually neutralized and the secretion of acid is stimulated until ultimately the normal acidity of the gastric juice is exceeded. If

the drug is administered to a hypoacid subject *during* the process of digestion, the food may pass out of the stomach before the normal acidity has been restored, so that the beneficial action would be lost.

Some time should be allowed to elapse, therefore, between the administration of the dose and the ingestion of food. This period varies with different quantities of the bicarbonate. The maximum of acidity is generally obtained in two hours after a dose of 8 grains; in three, after one of 16 grains. Small doses may, therefore, be given at meal time, but larger quantities should be given about an hour before meals. The dose itself must be varied according to the case; in some instances as much as 80 grains will be required, given an hour before meals, to obtain the maximum of acidity, but this quantity is much too large for patients with accentuated hypoacidity; for such patients 8 grains may prove sufficient.

RADIOTHERAPY

(CONTINUED)

Threefold Operation of X-Rays.— We may recognize a triple therapeutic activity of the x-rays, or rather three degrees of activity, towit:

1. *Stimulation of the cutaneous structures* (moderately low vacuum, 4 test-holes of Walter's skiameter, distance 10 inches, duration 5 minutes, repeated every other day).

2. *Impairment and final suspension of bacterial life* (lower vacuum, 3 t-h. W. S., distance 10 inches, duration 8 minutes, repeated each or every other day).

3. *Destructive effects on tissue-cells* resulting in inflammatory, degenerative or gangrenous processes (low vacuum, 2 or 3 t-h., W. S., distance 10 inches, duration 12 minutes, repeated every day).

The data here given represent a fair average. In keeping with this more or less arbitrary classification we may systematize our therapeutic x-ray work clinically.

Stimulation by means of small doses of Roentgen-energy is indicated in all conditions of the skin characterized by suboxidation, enervation, perverted nerve function, loss of tone, nutritional and trophic disturbances; e. g., pruritus, dry eczema, keloid, seborrhea, hyperidrosis, etc. In these cases small doses of x-rays are beneficial and curative.

The action of the x-rays is analogous to that of the socalled high-frequency currents, which are useful in identically the same conditions. Oxidation is intensified and accelerated, nutrition of the skin and normal function improved and the metabolic equilibrium restored. Small doses of x-rays increase the quantity of hemoglobin and, therefore, the oxygen-carrying power of the blood. In this way the beneficial effect of x-rays in the treatment of leukemia can be explained.

Applications of x-rays have been known to relieve deep-seated pain. The effect is perhaps due to the impingement of cathodized molecules of ether upon the skin, the impulses being transmitted by the skin-nerves. The affinity of ether-waves of this kind for oxygen causes impulses of this character to have a regenerating effect on the tissues with increase of "tone" and coincident lessening of pain as a result. That in many cases the effect is suggestive is understood.

The Germicidal Action of the X-Rays (impairment and final destruction of low forms of life) makes the Roentgen-energy in medium dosage useful in all cases caused by bacterial invasion of the cutaneous tissues, especially in conditions caused by pus-germs (acne, furuncles, etc.), the different varieties of tinea (ringworm, barber's-itch, favus, etc.), and, above all, the bacillus tuberculosis (lupus vulgaris).

Destructive Effects on Tissue-Cells are produced by large doses of x-rays. These effects may cause inflammatory conditions, degenerative changes and gangrenous processes. Morbid tissues are credited with less resisting power than normal tissues and, accordingly, succumb to the destructive action of the x-rays much more readily. This statement is a summary of the therapeutic uses of Roentgen-energy in cancerous (malignant neoplastic) afflictions of the surface, principally epithelioma and rodent ulcer.

I have stated that the surface is the theater of therapeutic action of the Roentgen-rays. The use of the latter for the cure of deep-seated malignant disease has been abandoned. Epithelioma of the face is the classical type of disease which in the vast majority of instances can be cured by means of x-ray therapy. In cancer of the breast the results from x-ray treatment are hardly worth considering, although as a postoperative agent the x-rays seem indicated.

To recapitulate:

Small doses of Roentgen-energy will—in a reasonable number of cases—cure nervous and other forms of idiopathic itching, chronic, indolent ulcer, chronic eczema, muscular rheumatism, neuralgia, and other trophic diseases characterized by suboxidation.

Medium doses of Roentgen-energy will cure many cases of purulent skin afflictions, a large number of skin diseases produced by fungi of the tinea variety, nearly all cases of lupus vulgaris, some cases of superficial tubercular glands.

Large doses of Roentgen-energy will cure practically every case of skin-cancer and rodent ulcer.

Careful Selection of Cases Imperative.—Failures are due to improper selection of cases and defects in technic.

The classification given above represents the actual therapeutic status of the x-ray treatment of today. Absence of method is reponsible for most of the unsatisfactory x-ray work done.

The Roentgen-rays (as a curative agent) are *not indicated* in cases of deep-seated cancer (stomach, uterus). As a *palliative measure* they answer nicely in many cases of this kind. I am in doubt as to their exact value in the sarcomatous variety of cancer. I used them in a case of sarcoma involving the postnasal space. The patient (woman of about 35) had been operated upon repeatedly. In this case the x-rays apparently produced a perfect cure. The improvement in general health was remarkable. There has been no recurrence in three years. In other cases of sarcoma the results after x-ray treatment were by no means good.

There is no doubt in my mind that in suitable cases, such as quoted above, the x-rays produce permanent cures. The proper technic is the pivotal point upon which success hinges. The operator should understand his tube, its possibilities in relation to the object to be accomplished, and the clinical character of the case. He should expose affected areas properly and protect healthy tissues carefully by the liberal and rational use of sheet-lead.

It is but fair to state that in the treatment of many conditions, especially those which have been mentioned as being adapted to the administration of small doses of the Roentgen-rays, the socalled high-frequency current has superseded the x-rays in the hands of not a few operators. For the production of a true high-frequency current a large induction-coil (x-ray-coil) should be used. The therapeutic indications of the high-frequency current, it will be remembered, has been referred to in a previous lesson.

[The article which follows was omitted from its proper position in the work of the course.—Ed.]

Phosphorus and Its Compounds

Phosphorus is a natural ingredient of the nervous system and is used as a food for the system.

Lecithin is a true organic combination of phosphorus. It is universally distributed throughout the organic world and is found wherever protoplasm is alive. It occurs in nature always combined with certain albumens, and in order that it be properly assimilated it must be isolated from its albuminous combinations.

It has been the aim of therapeutists for a great number of years to find a phosphorus compound that is easily assimilated and properly retained by the tissues, the reason for this endeavor being that in all wasting diseases, in neurasthenia and nervous debility of all kind there is always a great loss of organic phosphorus. It may be considered a fully recognized postulate that unless the phosphorus is replaced the organisms cannot perform its functions in a nor-

mal manner. At first, basing their therapy on this idea, clinicians gave certain inorganic salts of phosphorus, as for instance sodium phosphate and later the hypophosphites of sodium; then certain French physicians recognizing that in lecithin the phosphorus is found combined with glycerin, introduced the socalled glycerophosphates into practice.

But all these phosphorus compounds have proved practically to be therapeutic failures and have since been abandoned by conservative therapeutists, although some, unthinking, adhere to their old-fashioned prescriptions even to this day. But in lecithin a phosphorus combination has been found that is readily assimilated and that can be used to supply phosphorus to starved nerve-tissues whenever they cry for it.

In "Textbook of Alkaloidal Therapeutics" we read that the clinical results that are based on the experimental investigations of lecithin are exceedingly gratifying. Aside from the fact that given to normal infants and adolescents it unquestionably hastens their growth and stimulates more rapid development, it is an understood fact that given to abnormal children and those suffering from marasmus or malnutrition lecithin reestablishes nutritive equilibrium, favoring growth and stimulating normal development. In a great variety of nervous disorders in which there is loss of nerve-energy it acts as a reconstructive of nerve-tone and is therefore exceedingly helpful. In anemia and chlorosis it stimulates the function of the blood-forming organs and is therefore indicated.

In a large variety of functional disorders of the nervous system and in those disorders of metabolism that are the inevitable result of these nervous perversions lecithin acts with remarkable efficacy. Thus in diabetes and the uric-acid diathesis, both diseases that are presumably due to some neurosal defect, it has been given with advantage. In neurasthenia and a variety of psychoses, usually classed as "nervous prostration," lecithin has also been most successfully employed.

There is one other disease in particular in which lecithin has been found to be of great value, namely, tuberculosis. In this affection there is always great loss of phosphorus and nitrogen, owing to the destruction of the patient's tissues by fever and the tuberculosis toxin. This loss, it appears, can in many cases be repaired by the administration of lecithin in sufficiently large doses; for it stimulates tissue reconstruction and incidentally supplies the needed phosphorus. Many clinicians report very brilliant results from the administration of this preparation in the treatment of the early stages of tuberculosis. Lecithin also has the power of stimulating leukocytosis, and this is clearly recognized as the best and most satisfactory means of combating any acute infectious disease. And in convalescence from acute infectious disease there is no tissue-builder, no general tonic like it alone or with the triple arsenates with nuclein. It is also said to be a most efficient remedy in the functional impotency of premature senility. Lecithin is, therefore, a practical panacea in both extremes of life, stimulating the young organism to growth and preventing premature decay in the old.

IMPORTANT NOTICE

With this number of CLINICAL MEDICINE we complete the study of the different remedial agents, and in the October issue we shall take up Applied Therapeutics. From this time on we shall study the clinical application of our remedies. Instead of taking up the subject in the stereotyped way of the textbooks on "Practice," we prefer to study the clinical manifestations as they present themselves to the physician. This is the *natural*, the inductive way. Thus doing, we begin at the beginning and reason from phenomena to finished diagnosis, and so get, as we pass from point to point, the keys to successful treatment. The usual plan is to commence with the diagnosis, tracing the crooked trail back to the essential phenomena.

Pursuing the general plan outlined we shall commence with the study of Fever. This will be carried out as follows: The introductory articles will be written by Dr.

Butler, who will discuss the factors causing fever, and their mutual relation. From this discussion he will deduce the principles which should govern treatment, and point out the distinct indications and the remedies to meet them. Dr. Waugh will follow with a detailed discussion of the use of the medicinal agents, and their proper selection to meet exact conditions, complications and associated phenomena; the alkaloidal methods will be carefully described. Dr. Juettner will discuss the hydriatic and other physical methods, explaining the theories governing their use and describing the technic.

To complete every lesson we shall ask our readers to discuss in short, snappy articles all the different phases of the subject that suggest themselves. In this way we hope to bring out modifications of methods, which will be of great practical value. For instance, one can take up "The Heart During Fever." Another, "The Influence of Fever Upon the Digestive Canal, and Indications." Still another, "The Influence of the Digestive Canal Upon Fever." Another, "A Comparison of Aconite and Aconitine." Another, "Differences in Action between Veratrine and Aconitine." Another, "When Should Stimulants be Used During Fever?" One subject suggests another. Please consider this an invitation to write upon something that interests you.

The same rules concerning the work to be done and the certificate of the course will continue to hold good. Every physician in good standing who completes a year of study, as shown by sending to the director, monthly, satisfactory answers to the questions printed at the end of each lesson, will be awarded the certificate of the school, a handsome document, 11x14 inches in size, bearing the signatures of the officers and the official seal.

We hope the new departure will appeal to many. Indeed we think it will prove so interesting that every reader of CLINICAL MEDICINE, whether he sends in his answers or not, will go through the lessons carefully every month. Every issue will really become a symposium on some special subject. When complete they will make a connected serial on "Practice" which we think will surpass any book on the subject published.

EXAMINATION QUESTIONS

1. Explain the action of the acids and alkalis on the fluids in the tissues.

2. What is the function of the calcium salts in the system and for what conditions are they especially useful?

3. Are magnesium salts poisonous under certain conditions? Explain.

4. For what purposes are the lithium salts given? In what forms may they be given and in what doses?

5. Restate at length the rational employment of the sodium carbonates in digestive troubles.

6. What is acidosis? acidemia? Is there a difference between the two, and if so, what?

7. Outline a rational treatment for acidemia.

8. Give chemical tests for stomach hyperacidity.

9. Describe the effects, remedial and harmful of the X-rays.

10. Give the imperative precautions in using the X-rays.

RESEARCH QUESTIONS

1. In chemistry what is meant by neutral salts, acid salts, and basic salts?

2. What are the physiological effects of ammonium and its salts?

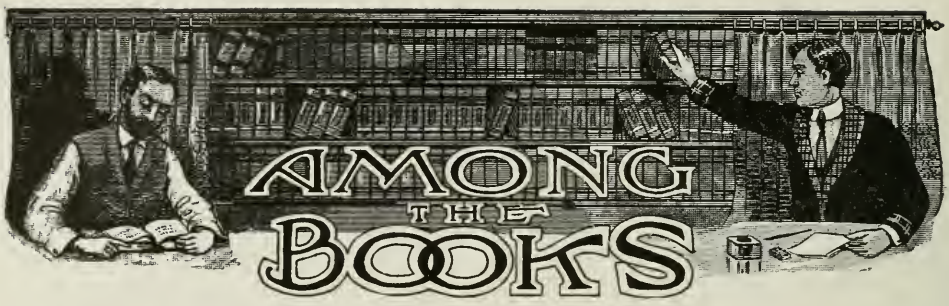
3. Tell about the different phases of osmosis. What is the etymology of this word?

4. What agents reduce coaguability of the blood? Which increase it?

5. What effect have excess of alkalis and of acids on gastric and intestinal digestion?

COPPER NUCLEINATE

Cuprol is the nucleinate of copper, introduced by Schwickerath. It contains 6 percent of copper and animal nuclein—Merck says, yeast nuclein. Very soluble in water, especially hot; not precipitated by alkalis; best solution 10 percent with 1-2 percent chloretone. A great advantage is the very slight irritation and almost complete absence of pain. Sicherer used it in eye work, acute and chronic catarrhal conjunctivitis, in rebellious cases applying it in powder. No anesthetic is needed. Failure is rare.



THE SHADOW OF THE CRESCENT

Here is a rattling good story for the summer time, something that will entertain you from the first page to the last and in so doing cause no unusual or unnecessary strain upon the cerebral convolutions. The plot shifts from Paris to New York, from New York back to Paris, and down to the Ottoman Empire. There is an attractive young man as the hero and a beautiful young woman for a heroine, with plots, counter-plots, rebellion, abduction, fighting, and everything that one can desire in a story for the heated season. It is especially seasonable in its appearance in the light of the late change of dynasty and of rulers in Turkey. It is a clever story, and we can recommend it both to the doctor and the doctor's wife. The former will like the adventure and the second the romance, and of both there is an abundance. The author is Edward Bedinger Mitchell, and it is published by Frederick A. Stokes Company of New York. Procurable at any book store. Price $1.25.

INTERNATIONAL MEDICAL ANNUAL

The International Medical Annual. A Year Book of Treatment and Practitioner's Index, 1909. Twenty-seventh Year. New York: E. B. Treat & Company. Price $3.50.

For the progressive, studious, and faithful physician whose first aim in life is to render the best service of medication to the patients committed to his care but who is linguistically limited to the English language alone, this Annual Book of Treatment and Index for 1909 is not a mere professional luxury but a categorically imperative necessity. The thirty-seven contributors to this work gathered reliable information and tried procedures from all parts of the world, and the range of subjects treated of here, certainly covers all that a general or special practician is likely to meet with in his practice in medicines and surgery. No new topic that came up for discussion in medicine last year is here omitted.

JUETTNER'S "DANIEL DRAKE AND HIS FOLLOWERS"

Daniel Drake and His Followers. Historical and Biographical Sketches. By Otto Juettner, A. M., M. D., author of "Modern Physio-Therapy," "Songs of the University of Cincinnati," etc. Harvey Publishing Company, Cincinnati, 1909. Price $5.00.

Dr. Juettner is probably right in the statement made in the preface of his book, that in these days Daniel Drake "is entirely forgotten." Such is the tyranny of time. And yet in his day Drake was probably the best known and possibly the most brilliant physician west of the Alleghanies.

Daniel Drake was born in New Jersey in 1785; his family was very poor and moved to Kentucky when Daniel was only two and a half years old. Like Lincoln, he was reared in poverty and spent his childhood in the log cabin of the pioneer. His education was of the desultory kind to be acquired from itinerant country school teachers. In 1800, when a boy of fifteen, he was apprenticed to Dr. Wm. Goforth, a well-known

practician of Cincinnati. In 1804, when hardly nineteen years of age, he became Goforth's partner, and received his "diploma" from Goforth's hands the following year. The fall of the same year (1805) he went to Philadelphia, spending five months in studying at the medical college of that city. He did not receive his diploma until 1816, when he spent another winter in Philadelphia.

From the very beginning of his career Drake took a prominent place in his profession. He was a member of the first faculty of the Transylvania University's Medical Department in Lexington, Kentucky, and one of the first teachers of medicine in Cincinnati. More than any other man he was instrumental in the establishment of the Medical College of Ohio, opened in 1819, and was its first president, as well as professor of Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children.

Dr. Juettner has prepared a beautiful tribute to the memory of this man, and it is certainly to be hoped that his efforts may be rewarded by a circulation of the volume commensurate with its literary and historic merit. We pay too little attention to the human side of our profession. Would that we had more books of this kind to commemorate the works of "the fathers."

The volume also contains a large number of sketches of other physicians who have been prominent in Cincinnati from the time of Drake down to the present time. There are also a great many photographs; also pictures of medical institutions.

We hope that someone may be inspired by Dr. Juettner's efforts to undertake a similar labor of love for the medical profession of our own city.

LIPPINCOTT'S "INTERNATIONAL CLINICS"

International Clinics. A Quarterly. By leading members of the medical profession throughout the world. Vol. II, nineteenth series, Philadelphia and London: J. B. Lippincott Company. 1909. Price, $2.00.

The subjects treated upon in this volume include: treatment, medicine, surgery, gynecology, and obstetrics, ophthalmology, otology, proctology, psychiatry, pathology (testis, cerebrum). A few of the chapters I was specially interested in, as for instance that on the present status of the Cambridge reaction, by Dr. Edward H. Goodman. Fortunately in the case of pancreatic pathology the progress of medicine has not to wait a generation or two before the truths discovered about it are ultimately accepted by high official authority.

Another chapter of interest is that treating extensively on congenital idiopathic dilation of the colon (Hirschsprung's disease), by Dr. Peter Daniel. On another page the reader will find a reference to this peculiar condition, and which seems of special interest. Altogether, this man's case seems to call in question the propriety of calling the intestinal tract the "*primæ viæ*," that is to say, *primæ viæ vitæ*, for he lives to an old age and he propagated despite of this lesion.

And yet another chapter that interested me, but more in an antiquarian medicobiblical aspect, is that by Dr. Richard F. Wood, on kraurosis vulvæ. Many years ago, while writing an exhaustive commentary on the song of songs by Solomon, I came to verse second of chapter seven, and found that all the versions, ancient as well as modern, utterly fail to give a true rendering of the original, whether intentionally or otherwise I cannot say. Nor do they make any more sense than does the common English version, namely, "Thy navel is like a round goblet which wanteth not liquor." The correct rendering of the original Hebrew, as I interpret it, is, "Thy outbreak a crescent moon-like basin never wanting the infusion." When we remember the immense material which Solomon had for the practical comparative study of gynecology we can easily see what he meant, to wit, that he expected the external genital organs of the Sulamite girl whom he addressed were not lacking in their natural secretions. I will not occupy space here in support of my exposition of the Hebrew original, but

will gladly do so privately to any one that will ask me. We may infer from Solomon's remark that functional kraurosis was known in ancient times in extensive harems. I recommend this point to the higher critics of the Bible for an indication as to the antiquity of that remarkable ancient theatrical poem.

PRACTICAL MEDICINE SERIES

The Eye, Ear, Nose and Throat. Volume III of the Practical Medicine Series. 1909. Edited by Casey A. Wood, M. D., D. C. L., Albert H. Andrews, M. D., and Gustavus P. Head, M. D. Chicago: The Year Book Publishers. Price, $1.50.

In each of these departments the reader will find whatever advancements were made in the last twelve months in the treatment of these respective ailments, something a live physician cannot afford to be ignorant of.

TAYLOR'S "ORTHOPEDIC SURGERY"

Orthopedic Surgery for Practitioners. By Henry Ling Taylor, M. D., of the New York Post-Graduate Medical School and Hospital, Assisted by Prof. C. Ogivy and Prof. F. H. Albee. With 259 illustrations. New York: D. Appleton & Co. 1909. Price $5.00.

As is said in the title page, the book is not intended for the specialist, but for the general practician, and it is therefore full of useful hints in the prophylactic direction. It is the family physician, a personage largely displaced by the specialist in these modern days, who will often find valuable hints in this book of import to parents and guardians for the benefit of growing children. The whole book is modern, rational and plausible. The treatments are specially commendable.

HOMANS' "SELF-PROPELLED VEHICLES"

Now that nearly every doctor is buying an automobile it is quite the thing that he should be provided with a textbook which enters into the theory of the machine, gives details of its construction and tells how to repair it and run it. We have seen no book that is more complete, more exhaustive in detail and more easily understood than this one. There are nearly 400 illustrations which add greatly to its value. Anyone who wants to understand his motor car fully should be provided with this book, or one equally good—if there is such a one. It is published by Theo. Audel & Co., 63 Fifth Ave., New York City, and the price is $2.00.

PRACTICAL MEDICINE SERIES

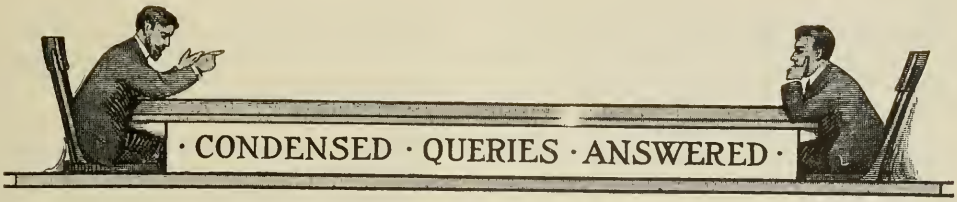
The Practical Medicine Series. Vol. I, General Medicine. Edited by Frank Billings, M. S., M. D., of Rush Medical College, and J. H. Salisbury, A. M., M. D., of Chicago Clinical School. Series 1909. The Year Book Publishers, Chicago, 40 Dearborn St. Price $1.50.

The volume contains 390 pages of closely printed matter. It is full of the latest and best in medicine, containing in abstract a record of the new as well as of the reasserted good in old practice during the last year. There are certainly few books published equal to this in usefulness for the conscientious physician, who should have at hand, for ready reference, a record of the world's medical progress.

PRACTICAL MEDICINE SERIES

The Practical Medicine Series. Vol. II. General Surgery. Edited by John B. Murphy, A. M., LLD., of the Northwestern University Medical School. Series of 1909. The Year-Book Publishers, Chicago. Price $2.00.

This volume of 617 pages is one of which both editor and publisher may well be proud. There is nothing of any importance in surgery that has been advanced during the last year, anywhere in the world, that has escaped Prof. Murphy's watchful eye. No progressive physician can be served better in this department by any other similar book that we know of.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5477. — "Chloasma Following Strain." O. H. S., Indiana, asks advice in regard to the treatment of the following case: "Female, age 22, single, has never been robust, weight eighty-five to ninety pounds, rather nervous and excitable. Last February she visited in the city and did a great deal of walking and the day she came home she carried a heavy suit-case several squares. On returning she complained of pain in the right side which grew worse, and she was in bed one day, but after use of some local remedies and being kept quiet she was able to get up again; but she still complains more or less of her side. Some days it does not trouble her. The aching and distress is located about midway between the crest of the ilium and border of ribs. No enlargement, nothing to be seen or felt. Seems too high for an ovarian trouble. At times complains of a crawling sensation, 'inside.' Is worse after sweeping or lifting. I notice her trying to support side at times with hand. I have not made any vaginal examination. Her appetite is excellent and color good. Have been giving iodine locally and patient is now taking alnuin. Has blotches on face that this seems to help. Menses are regular."

There seems to be some hepatic involvement together possibly with appendicular trouble. Urine and feces should be examined. Do not forget the possibility of splanchnoptosis—prolapsus of the abdominal viscera. Note carefully any "sagging" of liver, spleen or kidneys, and any special fulness or pouching out over lower abdomen. In such cases "lifting up" on the abdomen will give relief (Glenard's sign). Palpate and percuss the hepatic area carefully and note deep tenderness on rigidity. The "blotches" you speak of are probably chloasma. We would suggest leptandrin, macrotin and juglandin in medium dosage every four hours, chionanthin after meals and a brisk cholagog every night before retiring. A saline draught the next morning will prove helpful. Potassium iodide ointment rubbed in well locally, besides copious high enemata of decinormal salt solution given daily (patient in the knee-chest position) will complete the treatment.

The night prior to commencing this medication give blue mass and soda, 1-2 grain; podophyllin, gr. 1-6, half hourly, for six doses. It is not desirable to lose time of course and we think you may advantageously proceed immediately, but the specimens should be examined; then, should results not prove thoroughly satisfactory, you can prescribe positively for the conditions present. If there is splanchnoptosis a properly fitting abdominal bandage or long, low-cut corset, made especially for such cases, will give great relief.

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QUERY 5478.—"An Old-Standing Syphilis." W. E. R., Texas, has had a case of syphilis under treatment for two years and four months. The woman has been kept on protoiodide of mercury with potassium iodide in five-grain doses most of the time. She has, however, been allowed to remain untreated from two weeks to two months.

She has considerable trouble with her mouth; ulcers break out or the mouth gets sore and smells like "too much mercury." The doctor asks: "Have I pushed mercury too long or is it a case of syphilitic sore mouth?"

We should never let a patient go *two months* without medication; also, it is altogether possible that you have forgotten to eliminate freely enough. Calx iodata pushed to the limit would probably have proved an efficacious remedy for the buccal ulcers.

We cannot quite gauge the existent conditions from your brief description. Is there any sign of gastric disturbance? What treatment is the patient now on? What have you been doing for the ulcers? Suppose you touch them with iodine daily, or every other day; also, let the patient swab the mouth with a solution of calx iodata, one to three two-grain tablets crushed and dissolved in two ounces of cinnamon water.

Meanwhile eliminate freely, pushing iridin, stillingin and xanthoxylin with nuclein. All this, of course, on general principles. As soon as we have such further data we may be able to prescribe positively.

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QUERY 5479.—"Crotalin and Yohimbine." C. F. W., Texas, asks: "What do you know, personally, about crotalin (snake-venom) in tuberculosis?

"What is your opinion of yohimbine, recommended as an aphrodisiac for females?"

We have no personal experience with crotalin and are simply interested observers. The article which appeared in THE AMERICAN JOURNAL OF CLINICAL MEDICINE for June brought many inquiries, and we have asked the physicians using crotalin to observe effects carefully and report results. Experience has been variable; with some quite satisfactory, with others not so. We cannot at the present moment pass judgment. Crotalin should, however, be tried out more thoroughly, small doses being given and tentatively increased if results warrant.

We do not at the present time recommend yohimbine. Clinicians generally in this country report no success in the great majority of cases, and quite frequently symptoms akin to those produced by cocaine were noted in patients receiving this agent.

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QUERY 5480.—"Facilitation of Labor." J. B. D., Alabama, has been engaged to attend a woman, multipara, who expects to be confined at an early date. Her labors have all been long and tedious, sometimes necessitating the use of forceps. The husband is of a tall, rather large frame, she rather squat and fairly heavy-set. The previous babies have been large. The doctor wants to know "what are the remedies to give to facilitate her labor and when should they be begun?" He has told her that he could give her medicines that would accomplish this much-desired result.

Without a more definite knowledge of the woman's pelvic measurements and general condition we naturally cannot prescribe positively. However, we suggest that you give 1-3 grain each of aletrin, caulophyllin and viburnin, thrice daily, for a full month preceding the expected accouchement. For a week or ten days prior, or even for a longer period, give half an ounce of castor oil on a little hot milk (or in any other way) each night on retiring, or you may give half that quantity respectively morning and night. Castor oil certainly does aid in securing an easy labor, and the writer, in the past fifteen years, has delivered many women with slight trouble by following out this line of treatment.

In women with a history of difficult parturitions, keep the bowels open and clean with laxative saline drafts and salt enemas. Be sure of the position of the fetus at all times, and maintain correct posture, if necessary, by the application of a wide-woven elastic bandage or abdominal belt.

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QUERY 5481.—"Vaginal Hemorrhage." S. S., South Dakota, has a lady patient of 19 who began menstruation at the age of 13, and has been regular up to a year ago. She weighs about 150 pounds, looks healthy. History negative. She has slight tenderness over the right ovary. She was unwell five times last month. Flow appears on slightest

exertion or lifting. She states she has leucorrhea, but examination does not show anything abnormal. Has been taking hydrastis and a uterine sedative combination.

Hemorrhages from the vagina produced by exertion or lifting cannot be regarded as a menstrual flow. The presence of leucorrhea and tenderness over right ovarian region evidences congestion and possibly infection of the pelvic viscera—possibly an endometritis? Hemorrhagic endometritis is not a rare condition, though it should hardly be in *young unmarried* women of nineteen.

You do not state whether the patient is full-blooded, neither do you give us any idea of family tendencies. Does she bleed easily from other parts, and are you quite *sure* that the uterus is not enlarged or displaced? If she has a leucorrhea, find out whether it be of vaginal or uterine origin, and make yourself familiar with ovarian and uterine conditions generally. How are the bowels, constipated or normal?

In the meantime give copious very hot alkaline antiseptic douches, using a retention tip. Keep the bowels open with a morning saline laxative, and phenolphthalein or cascarophen at night. Hydrastin, gr. 1-6; ergotin, gr. 1-6; hyoscyamine, gr. 1-1000, every four hours. If this girl wears tight corsets have them removed and put her into a Ferris health waist or similar garment. If endometritis is found and local treatment does not relieve curetment may be necessary.

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QUERY 5482.—"Gonorrheal Cystitis." F. S. C., Pennsylvania, forwards a specimen of urine for examination and writes: "I have diagnosed the case as ulcerated condition of bladder with gonococci. What do you advise?"

The report of our pathologist shows the diplococcus of Neisser to be present, and your diagnosis is unquestionably correct. Our own customary method of treating cystitis is as follows:

Irrigate with antinosine in solution, 1 : 1000, or ichthyol, 2-percent solution. Bring about normal acidity of the urine with ammonium benzoate, 4 grains every three hours, adding arbutin, 1 grain. It will be well if you add to the half glass of water, which should be taken with this medicine, a dram of a good preparation of hydrangea. Three times a day formin, 3 grains, in 4 ounces of water. On rising in the morning a saline laxative. Barley water is best for beverage. Keep the bowels open, if necessary, by giving phenolphthalein with senna and sulphur, and secure the skin's activity by warm salt sponge-baths taken every other night at bedtime, following with brisk friction with a rough towel.

An antiblennorrhagic formula (my favorite is calcium sulphide, gr. 1-6; camphor monobromide, gr. 1-6; hyoscyamine, gr. 1-1500; methylene-blue, gr. 1-6) may be alternated with the formin. You will find the ichthargan solution extremely efficacious. In a case like this a fairly strong solution may be utilized.

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QUERY 5483.—"Treatment of Ascites." J. B. S., Oklahoma, has been treating a female patient for ascites with "anascarcin and salts." In answer to a communication we suggested that he use the correct remedies for the condition present and asked him to describe the underlying pathology in order to permit us to suggest intelligently. Thereupon the doctor wrote:

"I thank you very much for the interest you have taken in this case. However, I do not exactly understand what you mean by 'the correct remedy.' While the causes giving rise to ascites in any given case must be more or less obscure during the lifetime of the patient, still there is sufficient predominance of symptoms in this case to conclude that the fault is in the portal circulation.

"This patient is about 70 years old, wife of a farmer, mother of eight children, all of whom are living. Has had good health all her life until the last few years, since when she has been having trouble with her digestive organs and congested liver. About two months ago, she noticed some enlargement of her abdomen, which gradually in-

creased until she looks like a woman in the sixth or seventh month. I am positive she has not an ovarian cyst, satisfied the liver is at fault, and think it is cirrhosis. Have been giving anasarcin, to get rid of the fluid, and succeed in this as long as the patient can bear the tablets in large quantities; when she can not, the fluid gains a little on us. The reason she cannot always take the tablets is that they make her sick at the stomach; then the salts, too, made her sick, hence the laxative.

"Now, Doctor, most of the diseases causing abdominal dropsy are from their nature lethal, and generally, therefore, ascites must be regarded as a symptom terminable only with death, although I know some sufferers do apparently get well. I recall that thirty years or more ago, Roberts recommended systematic tapping as a curative measure in cirrhosis. What is your opinion?"

We can not quite agree with you, Doctor, when you say, "The causes leading to ascites must be more or less obscure during the life of the patient." Careful examination of the patient and of all the secretions will enable us in almost every case to secure a positive knowledge of the underlying pathology.

In a person of such advanced age derangement of the body-chemistry is certain, while more or less serious organic lesions may also obtain. If you are dealing with hepatic disease, treatment is comparatively simple. Neither can we agree with your declaration that most of the diseases causing abdominal dropsy are from their nature lethal and that therefore ascites must be regarded as a symptom terminable only with death.

Strict adherence to the oft-repeated basal rules—equalize the circulation, eliminate waste, stop autotoxemia, maintain systemic asepsis, stimulate innervation, and feed the tissues—will enable us greatly to prolong the lives of a very large proportion of patients, provided, of course, repair and restoration of normal organic conditions and repair are possible. Not a few old people suffering from ascites have been apparently cured, living many years without the slightest sign of return, to die later of accident or some acute infection. Of course cirrhosis of the liver in the advanced stage means death sooner or later, but even here we can do very much and markedly prolong the patient's life. Apocynin, elaterin, and scillitin, together with the dosimetric trinity and leptandrin might even in such a case do some remarkable work; but, as we have already said, we must clearly recognize the underlying pathological condition and select the right remedies therefor, pushing them to effect.

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QUERY 5484.—"Preparation of Slides for the Laboratory." E. E. E., Kansas, writes: "A patient desires to have a microscopical examination of urethral secretion. How shall he proceed to secure the same and have them forwarded to the laboratory?"

Instruct the patient to receive the secretion from the meatus upon a glass slide. Over this carefully place the clean coverglass, pressing the two together so as to spread the fluid thoroughly over the inner surface. The glasses should then be dried by waving gently over a lamp, gas or alcohol flame. This must be done very carefully, so as not to overheat. The edges should be sealed with gummed paper. The nature of the specimen should be described on the package and the whole carefully packed (best in surgical cotton) and mailed to the laboratory. It might be well to send also a specimen of urine, 2 ounces from the amount first voided in the morning.

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QUERY 5485.—"General Pruritus." G. F. T., Illinois, asks advice in one of his cases, in which, he says, he has "given everything he can think of, but without much relief being secured." This is his presentation:

Farmer, aged 75. Always led active outdoor life; no serious illness, some history of gravel fifteen or twenty years ago; no specific taint; some prostatic trouble, also piles, but not of much consequence. Has attacks of difficult and painful urina-

tion, especially on taking cold, which yield fairly well to treatment.

Present symptoms: A general itching and burning, extending over the entire surface of the body; no appreciable surface lesion. This itching has continued for a number of months. Complains of feet being at times hot and burning, at others, cold. Recently complains of numbness of the feet, extending as high at times as the knees, especially is this symptom present on lying down at night. Complains of burning extending from throat to stomach. Gas formation in bowels. Patient thin and anemic, color suggestive of lemon-tint; but no tumor can be located. Urinary tests negative, i. e., no albumin or sugar. Dr. H. of Chicago examined this patient, but was unable to make a diagnosis.

"I have had," says the doctor, "several such cases of general itching and burning, but cannot find any light on the subject in any of the textbooks I have. This patient's heart is in fair condition, arteries not more sclerosed than one would expect. For several years calomel has given a good deal of relief, but not much of late. For intestinal antiseptics I have given the sulphocarbolates, at times also calomel, podophyllin and bile acids, but without any appreciable benefit. Also tried the iodides, salicylates, quinine, triticum, buchu, juniper, santal oil, as well as tonics and various digestive mixtures."

This "general itching" which you describe, Doctor, is almost invariably due to absorption of toxins from feces retained in the bowel. Digestive derangement with intestinal fermentation are also likely to set up some pruritus. Uric-acid retention (acidemia) and dermatic insufficiency must also be considered.

We understand today as never before the imperative necessity of obtaining in all such cases a clear idea of the condition of the patient's body-chemistry. Simple and positively reliable urinary tests have been devised and the busiest practician can in a few minutes *know* just what disorders he has to correct. In nine cases out of ten here will be an insufficient amount of solids excreted; the acidity will be high, and indican (indicating fermentative conditions in the intestine) will be found in greater or less amount. Uric-acid crystals, urates, and perhaps a few hyaline casts (indicating here renal congestion) will be noted.

To medicate an individual thus afflicted without realizing that those conditions obtain is useless. First of all it is desirable to "clean out and clean up," to get rid of gross debris. It is not sufficient to empty the bowel; the entire intestinal tract, the skin, the urinary organs, all need attention.

Let the patient take a thorough bath, then sponge the body with a solution of epsom salt (1 ounce to 3 pints of water); have him flush the bowel with 3 pints of normal saline solution, taking the enema in the knee-chest position. Instruct him to clean out his buccal cavity before and after food, and for two or three days let him drink copiously of thin barley water with lemon juice, or he may take pure water with asparagin and lithium benzoate. Cut down the food allowance for a few days, meat especially should be avoided. Fruits, fresh vegetables, and salads, with a moderate amount of cereal food are to be recommended. Instruct the patient to chew his food very thoroughly. Fluid should be imbibed between meals. These measures alone, if persisted in for a week or two, will bring about a vast change for the better.

Medication is simple. A few divided doses of calomel and podophyllotoxin every other night, a saline laxative the next morning on arising. Then some such combination as strychnine, juglandin and iridin before meals; an effective digestive agent after eating, and an hour later a moderate dose of the sulphocarbolates. Collinsonin, ergotin and hamamelin for prostatic congestion, with nightly application of a resolvent suppository.

We think you may set down most cases of "general itching" as due to the same cause. Try these measures anyhow, Doctor, and let us know whether we have "hit the bull's-eye." If treatment does not succeed it presumably is because it has not

been pushed sufficiently—one of the greatest difficulties in such cases we have to contend with. The prostatic trouble will subside more promptly if you inject an oil solution of thymol iodide into the prostatic urethra two or three times a week.

—

QUERY 5486.—"Infection of the Lacuna Magna." L. W., Iowa, sends a specimen of urethral discharge and asks suggestions for treatment of a "lingering case of gleet" of about ten weeks' duration. This patient first presented himself ten weeks ago, with a discharge he then had had about two weeks. Drainage bougies were used, also calcium sulphide, and the antiblennorrhagic, consisting of calcium sulphide, gr. 1-6; camphor monobromide, gr. 1-6; cubebin, gr. 1-67; piperin, gr. 1-67. This brought the case under control, but about that time the doctor inadvertently ran out of bougies and by mistake did not get a fresh supply for a few days. The patient was then away a short time and discharge again appeared. Injections of ½-percent solution of protargol were begun, which again brought the discharge under control, and when it became scanty, a second solution, containing zinc sulphate, bismuth subnitrate, bismuth subgallate, and hydrastis, was used. This is being used now. There is no discharge except that by "milking" a few drops can be expressed. It is of a lightish color but thick as white of an egg. The patient's general health is all right. "It is my idea," says the doctor, "that there is an infected pocket. There used to be a slightly tender place on the under surface of the penis. There is no tenderness there now, however. A one-percent protargol solution irritated his urethra."

The diplococcus of Neisser cannot be discovered in the discharge. Most probably you are dealing with a streptococcic infection of the lacuna magna.

Of course, we cannot prescribe positively without a clearer knowledge of conditions, but if the lacuna magna is infected, expose through a speculum, cleanse with hydrogen-peroxide solution, injected into the sinus through a blunt-pointed hypodermic needle (using the glass syringe); then dip a broom straw into carbolic acid and apply, neutralizing in thirty seconds with another broom straw dipped in pure alcohol; then with a Williams or similar applicator apply carbenzol ointment. Inject the urethra with an ichthargan or largan solution (regular strength) two or three times a week. Also have the patient inject twice daily a solution of hamamelis and calendula (aqueous preparation): hamamelis, 1 ounce; calendula, 1 ounce; water, 4 ounces. Examine the prostate carefully, and if the condition does not yield, have the secretion examined again. Internally give calcium sulphide, echinacea and hydrastin, two dosimetric doses of each every four hours.

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QUERY 5487.—"Offensive Stools." C. L. D., Georgia, wishes to give sulphocarbolates to a baby 16 months old whose bowels are loose and stools very offensive. He wants to know whether there is any better remedy to check this offensive odor in the stools.

We suggest the use of the combination of the sulphocarbolates with sugar and menthol, in tablet form, this being preferable for making solutions, and in pediatric work solutions are often desirable.

First cleanse this child's intestinal tract with small doses of calomel (or blue mass and soda), then follow with a few doses of magnesium sulphate, dissolving the salt in plenty of water. This may be sweetened and a few mouthfuls given every two or three hours during the day. After the bowels have moved commence the use of the foregoing intestinal antiseptic, a teaspoonful or two of a solution 20 grains to 4 ounces of water five to six times in twenty-four hours. If the child prefers a powder, crush the tablet, mix with a little milk-sugar and drop on the tongue, following with a draught of water. Wash out the bowel with an alkaline antiseptic.

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QUERY 5488.—"Systemic Infection Following Abortion." J. Y. H., Missouri, sends a specimen of pus taken from an incision in the shoulder (there the pus had

gathered) of a patient upon whom a criminal abortion had been performed, resulting in general systemic infection. Enormous quantities of pus have been taken from the shoulder daily, but with no apparent improvement. Temperature running up to 102° and 103° F. daily. The doctor desires suggestions.

The report of our pathologist shows streptococci and staphylococci in very large numbers. May we urge you, Doctor, to push in this case echinacea, calcium sulphide and nuclein (one grain, 1-6 grain, and 5 minims, respectively) four or five times daily. Or, better still, give nuclein hypodermically (diluted with equal parts of decinormal salt solution (each gtt. 15) morning and night, and the echinacea and calcium sulphide every two hours. Daily inunctions of unguentum Credé (1 dram) would also be useful. Keep the bowels thoroughly clean, and improve the activity of the skin by daily epsom-salt sponge-baths, one ounce to the quart of water.

What are pelvic conditions here? Is there anything left in the uterus? Drain the pus-pocket, irrigate with pure hydrogen peroxide solution, then wash out well with a strong chinosol solution, and lastly pack with a thin strip of gauze saturated with carbenzol. Copious antiseptic douches are of course called for.

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QUERY 5489.—"Examination of Exfoliated Skin in Scarlet-fever." W. M., Oregon, in a recent communication states: "It is claimed by a physician in this locality that you are able to examine microscopically the dead skin from a supposed scarlet-fever patient and tell positively that the individual did or did not have scarlet-fever. Is the doctor correct?

In answer to a letter from another Oregon practician (accompanied by a specimen of three shreds of epidermis from a patient of his) we wrote: "Our pathologist could not find any bacteria causing the squamous condition, which must be due to some other irritation. To make a more positive diagnosis it would be necessary for you to send more material."

In the letter accompanying the shreds the doctor wrote: "The clinical symptoms are incomplete; there is a possibility of scarlet-fever; also chemicals used on the skin may have caused this desquamation—or other unknown causes. Please determine the cause of this condition from the samples sent you." This is all the correspondence of the kind we have had.

By the way, have you seen a description of the new method of diagnosing scarlet-fever?

Let us reproduce it here: Upon the skin of the thorax or groin a small piece of cotton saturated with strong ammonia water is laid and permitted to remain until a strong smarting sensation is experienced, when it is removed and the site smeared with vaseline. In one-half to three-quarters of an hour a vesicle forms, a drop of serum from the blister is smeared upon a slide, which is washed with methyl-alcohol and stained with methylene-blue. Examination with a 1-4 to 1-6-inch objective will reveal the protozoon.

If any of our readers have investigated this method we shall be pleased to have an expression of their opinion as to its efficacy in their hands.

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QUERY 5490.—"Erosions in Deep Urethra." J. E. M., Minnesota, states that some years ago he tried the solution of thymol iodide in oil, but it did not cure. He adds: "I do not know any reason for my failure. Is there any other cure for irritation of the prostatic urethra?"

The prostatic urethra requires very careful treatment. The preparation of thymol iodide can often be applied with advantage, but if there are deep erosions or affected areas we must touch them with a solution of silver nitrate (or some other silver salt) or, in some cases, apply a diluted citrine ointment. Thymol iodide in oil is applicable in every case at some stage, but naturally it can not be a remedy for all conditions. The copper electrode (positive pole) and galvanic current are also often indicated. A better clinical picture should be submitted if further advice is desired.

THERAPEUTIC NEWS NOTES

Publisher's Department.

The Battle Creek Sanitarium is sending free to physicians a valuable illustrated booklet of over 200 pages setting forth the Battle Creek Sanitarium System. Send for a copy (mentioning CLINICAL MEDICINE), addressing The Sanitarium, 304—305 Battle Creek, Mich.

Hodson's $6.00 Head Lamp complete with attachments for 110 V. Current at $3.50 is only one of the Betz bargains in this issue of CLINICAL MEDICINE. See back cover for more.

Cellasin is the latest and most effective single remedy in removing the prominent symptoms of Diabetes that has been found, it is claimed, during the entire history of the disease. Chemistry and Scientific Rationale will be sent on request to Mead, Johnson & Co., Jersey City, N. J.

Aspero-Lithine has been found effective in the treatment of Rheumatism, Neuralgia, Sciatica and Gout. Samples and literature may be obtained on request and the mention of CLINICAL MEDICINE, from McKesson & Robbins, New York City, N. Y.

Doctor, have you examined the Advance Clinical Thermometer? If not, send 75 cents to the Frank S. Betz Co., Hammond, Ind., for the best Clinical Thermometer on the market today.

The Acme Registry, 432 Washington Blvd., Chicago, offer medical students lucrative employment while attending college. If interested, write for information.

Sabalol Spray has been found an efficient remedy in Rhinitis, Coryza, Pharyngitis and Diseases of the upper air-passages generally. Samples and literature will be sent on request to T. C. Morgan & Co., 104 John Street, New York City, N. Y.

Don't fail to write to Max Wocher & Son Company, 19-21-23 W. 6th St., Cincinnati, O., when in need of operating tables and operating room furniture. Descriptive literature will be sent on request.

For Vaccine literature and Working Bulletins, write the H. K. Mulford Company, Philadelphia, the leading Vaccine Manufacturers of the United States.

Doctor, send for samples of Allenbury's Milk foods. The special advantages of these products you will find on page 58 of this issue of CLINICAL MEDICINE.

A handsome souvenir will be sent to any physician free by the W. D. Allison Co., Indianapolis, on mention of CLINICAL MEDICINE. Don't miss it.

Special attention is called to pages 54 and 55 of this issue of CLINICAL MEDICINE. Here will be found eighteen important announcements, all of which will be found of interest and value to the medical profession. When writing to these advertisers, kindly mention CLINICAL MEDICINE.

The F. A. Davis Co., Medical Publishers, Philadelphia, Pa., is advertising for Medical-Book Salesmen. If you are interested, write for information.

Two cardinal remedies in the treatment of Diarrhea are to be found in Tannismuth (Bi-Tannate of Bismuth) and Gastrosan (Bi-Salicylate of Bismuth). These remedies are used successfully in combination or singly. Samples and literature will be sent on application free of charge by The Heyden Chemical Works, 135 William Street, New York City. Mention the Journal.

THE PHILADELPHIA CLINIC MOVES INTO OWN QUARTERS

The Philadelphia Clinic for Home Treatment of Chest and Throat Diseases (Consumption) has moved from 519 South 15th Street to its new location, 2114 Lombard Street, which has recently been purchased and refitted by the Board of Trustees by means of contributions received from its many warm friends and patrons; and its rooms are open for the treatment of patients Mondays, Wednesdays and Fridays at 3 P. M.

ICHTHYOL COMPANY'S JUBILEE

This company celebrated, last month, the completion of their first twenty-five years' existence. It may be recalled that when their sulphur preparations "Ichthyol" (the ammonium-preparation) and "Ichthyolate" (the sodium-preparation) were put on the market they were regarded with a good deal of suspicion; but Professor Unna's endorsement of their value paved the way to general recognition, and ichthyol is now a recognized part of the materia medica.—*Chemist and Druggist*, July 17, 1909.

RIFLE SHOTS IN THERAPEUTICS

For an independent, out-and-out straight-shot, right-from-the-shoulder, up-to-date and-a-little-ahead therapeutic journal, *"Ellingwood's Therapeutist"* is certainly *a cracker-jack*. It has taken *its place* among the leaders at a single bound. It teaches how to cure with a single remedy, for an exact condition. Its motto is, "The *Truth* for all, from all, to all, without any regard to the creed of the individual. *Every reader of* THE CLINIC ought to try it. Send 10 cents only, for the rest of this year (1909). $1.00 until January, 1911. Address, "Ellingwood's Therapeutist, 100 State St., Chicago, Ill.

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Inflammation and irritation of the skin, of any kind and from any cause, will promptly respond under the local application of

RESINOL OINTMENT

Alone or conjoined with systemic treatment as may be indicated, the efficiency of RESINOL has been demonstrated in thousands of cases of skin affections by many physicians, and their reports of the excellent results obtained furnish unquestionable proof of the value of this remedy. RESINOL has earned the reputation of being the best remedy for Eczema, Herpes, Erythema, Erysipelas, Seborrhea, Psoriasis, Eruptions of Poison Oak, Burns, Scalds, etc. It is equally valuable for inflamed mucous surfaces and very effective in all local inflammatory conditions. It is being prescribed daily for these affections in almost every country of the world.

RESINOL SOAP

Also contains the RESINOL MEDICATION, and it is the only Soap that should be used in bathing by persons affected by any skin trouble whatever; for it not only assists in the cure, but also prevents the recurrence and development of many skin affections. For bathing chafed and raw surfaces, and to cure and prevent Acne (Comedones and Pimples) it is unexcelled. It also prevents Dandruff and overcomes the tendency to profuse and offensive Perspiration. The tonic glow of health the daily use of this Soap produces is simply delightful.

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THE McCASKEY SYSTEM FOR PHYSICIANS

The McCaskey Register Company of Alliance, Ohio, is placing on the market an adaptation of their famous Credit Register in a half-dozen beautiful styles of cabinets. Over 50,000 McCaskey Registers are in use in the United States and Canada. Originally designed for the retail trade this Register has, unaided, gone largely into the professions, to such a great extent that the McCaskey Company over two years ago employed a corps of scientific and business experts to perfect its system for the medical and surgical profession. After long labors, modifying, building and destroying, and building up again, this combination of systematizers has perfected a simplified system of keeping scientific business and historical records which will make their Physicians' & Surgeons' System an indispensable adjunct to every high-grade practitioner's office. Of course, the system is entirely covered by patents. The famous McCaskey Register is housed in four or five styles of handsome cabinets at varying prices, and the system itself comprises a history case and a series of folders, blanks, etc., which practically enable a physician to have at the bed-side of his patient that patient's complete history, scientific and business.

The records are kept with one writing only, and the system is such that a life-time history of the patient is at hand. By an ingenious arrangement the lecturer or any doctor who wishes to gather data on any particular disease, either for an article for his profession or for publication, can lay his hands on this datum instantly, without the necessity of hunting it up. The records are made with an entire absence of drudgery, thus leaving the professional man more freedom to devote himself to the deeper and broader facts of his experience and profession. See announcement on page 37 of this issue, and write to the McCaskey Register Co., of Alliance, Ohio, for further information.

GONOSAN

KAVA SANTAL RIEDEL.

ITS RELATION TO THE MODERN METHODS OF TREATING GONORRHEA.

Just views of gonorrhea teach us that it may be treated by three methods: (1) by injections, (2) by vaccines, (3) by urethral sedatives and antiseptics given by the mouth. None of these methods excludes the other, and all (what a trio of powers!) may be used together.

Which place in order of merit shall be assigned to Kava Santal,—containing the resins of kava-kava rhizomes. Without expressing our private views, it may be said that this remedy brought forward by the best authority, and that, among balsams, it occupies probably the highest place. It is the natural coadjutor of injections; our knowledge of vaccines in gonorrhea being imperfect at this time.

Doctor When **Castor Oil** is Indicated Prescribe **Risiccol**

Dr. Hobart A. Hare
Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia, Pa., says in his text book upon Practical Therapeutics:

"Castor Oil is the blandest and most unirritating purge we have" and for this reason it has proven the safest and most satisfactory remedy at the command of the profession in treating intestinal troubles of the adults as well as of Children.

Risiccol is purely and simply Castor Oil in powder form. It contains 50% of the pure oil, and is made pulverant by the aid of magnesia and contains a very small percentage of sugar and flavoring material. It is absolutely tasteless and odorless, and has no suggestion of the oil itself. When Risiccol is mixed with either hot or cold water and allowed to stand no separation of the oil takes place. So finely is the oil subdivided that examined under the microscope of a magnification of 450 very few fat globules can be discovered. Risiccol is given in the same dosage as the pure oil and is particularly adapted for the aged, for children and sensitive patients. No griping nor repeating of the oil ever follow its use.

Samples and literature sent on request.

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Acid Dyspepsias, Infantile Colic, Cholera Morbus,
Flatulent Colic, Cholera Infantum Diarrhea,
and all abnormal acid conditions of the Alimentary Tract

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Rhubarb 2 1-2 grains	A superior laxative because it does not impair, but improves the digestion—is a tonic, also astringent.
Golden Seal 1 1-4 grains	(With the acrid resin removed)—the great tonic and corrector of the mucous surfaces.
Sodium Bicarbonate 2 1-2 grains	Antacid. Increases Alkalinity of the blood and the oxidation and excretion of effete matters.
Pancreatin 1 grain	Promotes intestinal digestion, converts starch into sugar and dextrose; proteids into peptones; emulsifies fats, digests the casein of milk. In the presence of an alkaline solvent, the action of Pancreatin is largely increased.
Ceylon Cinnamon 1 1-4 grains	Valuable in atonic conditions of the intestinal mucous membranes, with flatulence and diarrhea.

Spirit of Pepperment and a minimum of Simple Elixir is a menstruum that will commend itself to physicians.

Send for our booklets upon **Indigestion** and **Catarrhal Conditions.** They are sent postpaid to physicians upon application.

IMPORTANT

Sugar is contra-indicated in the treatment of digestive disturbances in which fermentative conditions play an important part—hence, we have corrected in this remedy the chemical and physiological errors so prominent in like preparations on the market.

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CINCINNATI

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TYPHOID FEVER

In the treatment of this disease it is necessary to control the patient's temperature and to keep the alimentary canal in as nearly aseptic condition as possible. The effort of the physician must, however, be directed toward preventing the intestinal perforation. No other remedy will accomplish this end more readily or more satisfactory than Daniel's Concentrated Tincture Passiflora Incarnata. The experience of the medical profession justifies the confidence which it has so often expressed. In the whole intestinal tract this remedy acts as a sedative and hypnotic. It does not lessen the supply of blood to any organ of the body, but gives natural and consistent nerve rest. Daniel's Passiflora does not impair the action of the heart or produce constipation, but as a mild laxative and diuretic, acts pleasantly as an eliminant and a nervine. Daniel's Concentrated Tincture Passiflora not only relieves "after-pains" speedily, but it also acts as a mild laxative and diuretic, and it is therefore an ideal remedy in this condition. When once a physician has given this remedy a thorough trial, he will never revert again to morphine, camphor, or any of the old-time injurious drugs.

TRYPSOGEN For DOSAGE and TREATMENT see this Journal Advertisement, page 38, June number.

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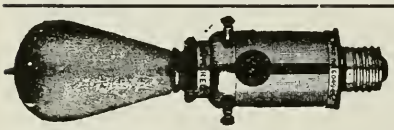

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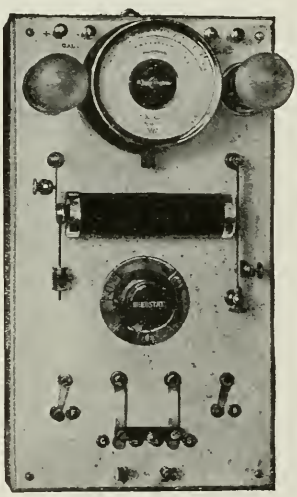

Many a doctor with years of experience, when asked concerning his electrical equipment will use the expression, "Next to my wall plate, etc.," showing thereby in what high esteem the wall plate is being held as a means of affording relief. There are a hundred divers designs of wall plates all intended for the administration of a galvanic and faradic current, most of them arranged with a half dozen or more complicated switches, the manipulation of which alone requires profound study. Besides, the apparatus has been loaded with useless appliances not required. The wall plate here shown has all the necessary appliances for the administration of galvanic and faradic current and but one switch for obtaining the modalities, a long step toward much desired simplicity. The milliammeter is of the Deprez Carpentier type with two scales one in red reading 0-20, in one half milliampere divisions, and the other in black, reading 0-400 milliamperes, in five milliampere divisions. Readings on the red scale are obtained by removing the shunt plug with which the milliammeter is equipped. The faradic coil is equipped with both ribbon and pendulum vibrator, the first giving sedative effects, the latter for muscular treatment and massage. The primary faradic current obtained with the slow vibrator being unidirectional is well adapted for exciting contractile tissues. The rheostat is of the Gaiffe type capable of withstanding a current of 750 milliamperes and a temperature co-efficient which is nil. The rheostat is mounted in a circular form on back of the wall plate, only the dial graduated in volts, with the indicator and button being shown on the face. The frame is quarter-sawed oak, while the plate is white marble. The plate is also furnished in an oak case with polished beveled plate-glass door. The price of the plate as shown including cords, handles and disc electrodes is $30.00, or if enclosed in the quarter-sawed case with plate-glass door $40.00. If you have alternating current, order a rectifier with it.

Send for a copy of **"Electro-Therapy** In the Office Treatment of the Female Pelvic Organs" if you are interested.

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Obscure Diagnoses

A thoughtful physician recently said that he believed *caffeine*—in tea and coffee as used by most people—had a tendency to veil the true condition of these individuals when complaining to the family doctor, resulting often in obscure or imperfectly defined diagnosis.

This is by no means unreasonable or unscientific. *Caffeine* is a drug—an alkaloid belonging to that interesting class called "habit-forming" drugs. It acts upon the heart and kidneys, and does so through the nervous system.

It also produces an illusory condition of the cerebral functions—leading one to believe he does not require rest or food for the time being; although in point of fact, the body may require both for physiological reasons.

In "cleaning up" these obscure diagnoses, it is necessary to remove coffee and tea in order to eliminate the *caffeine*.

Postum—made of clean, hard wheat and a trifle of pure molasses which is changed to caramel in the roasting, is of signal value in giving up the harmful beverages—coffee and tea.

When made right—boiled 15 minutes until dark and rich with good cream, postum has all the fascinating qualities of coffee but **none** of the harmful effects. It contains **no** coffee or other harmful substances.

The **"Clinical Record"** for the physician's bedside use, with name stamped in gold letters on cover, will be sent to any physician who has not already received a copy. Also prepaid sample box of postum and grape-nuts for clinical experiments.

Postum Cereal Co., Ltd., Battle Creek, Mich., U. S. A.

THE PRACTICAL APPLICATION OF PSYCHOTHERAPY

Recognizing the growing importance of psychology and psychic phenomena in their relation to disease, and realizing that the practical application of psychotherapy is primarily a function of the medical practitioner, a splendid series of brochures on psychotherapy has been prepared by the following well-known neurologists, psychologists and teachers:

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And many others equally prominent.

The object has been to submit in working form the latest scientific views on a line of treatment bound to play a conspicuous part in future medical practice.

Already a large number of physicians have availed themselves of these notable books and their reports as to the resulting benefits are enthusiastic in the extreme. Acquisition of the special ideas contained in the pages of these books assuredly gives the physician a unique advantage in the conflict with disease.

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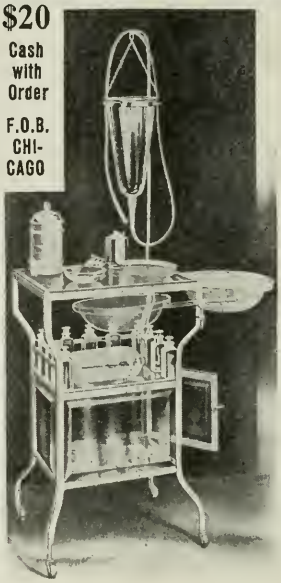

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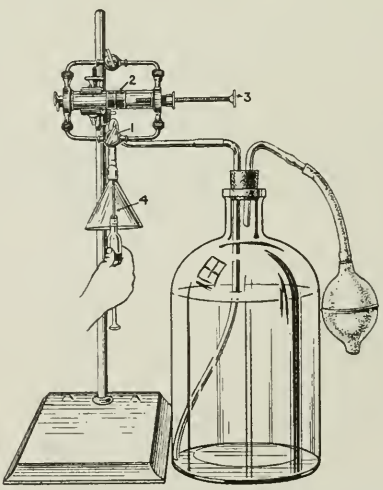

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2. Piston working freely in measuring cylinder.
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Lederle's Antitoxin is **accurately prepared** in accordance with the most improved methods of refining serum; **accurately tested** in accordance with the standard fixed by the U. S. Government, and **accurately measured** into the containers from which it is injected.

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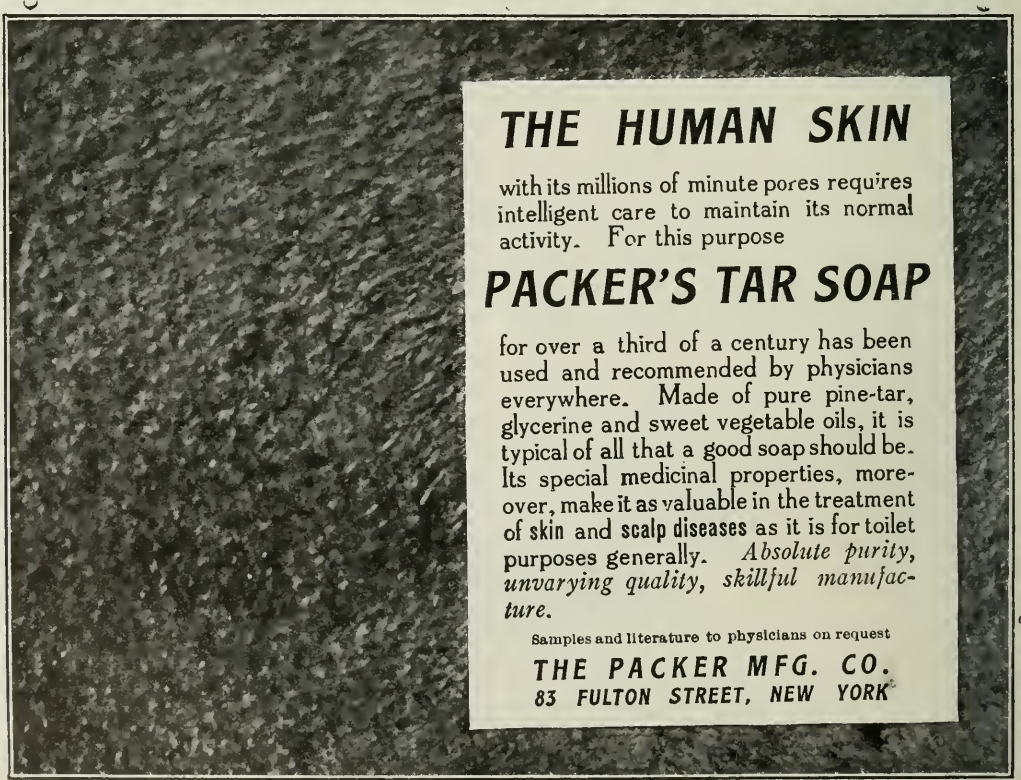
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for over a third of a century has been used and recommended by physicians everywhere. Made of pure pine-tar, glycerine and sweet vegetable oils, it is typical of all that a good soap should be. Its special medicinal properties, moreover, make it as valuable in the treatment of skin and scalp diseases as it is for toilet purposes generally. Absolute purity, unvarying quality, skillful manufacture.
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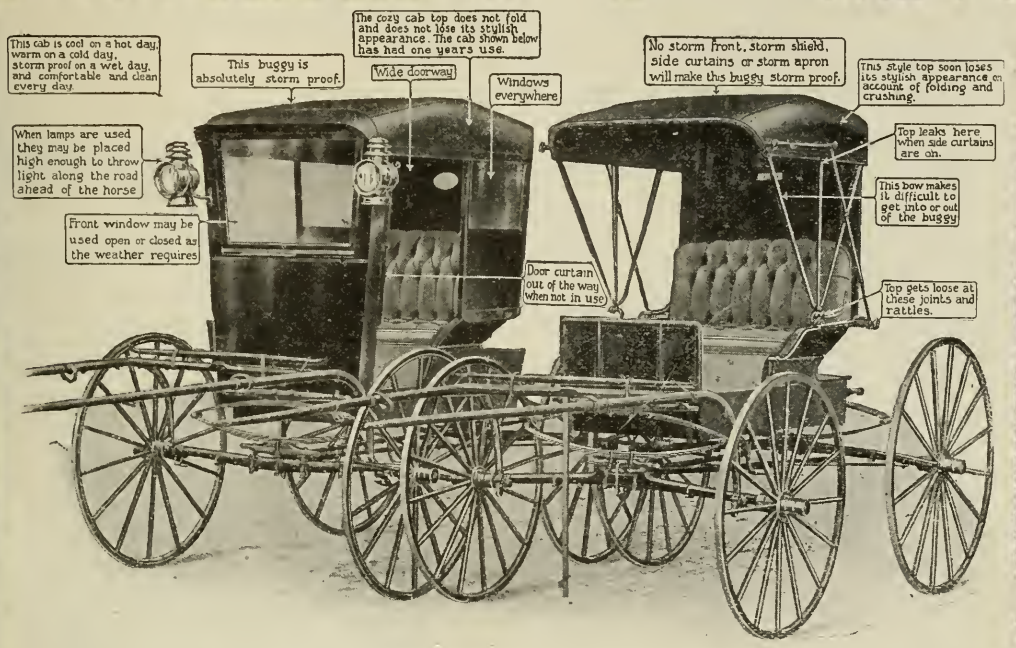
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The cozy cab top does not fold and does not lose its stylish appearance. The cab shown below has had one years use.
This buggy is absolutely storm proof.
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Windows everywhere
No storm front, storm shield, side curtains or storm apron will make this buggy storm proof.
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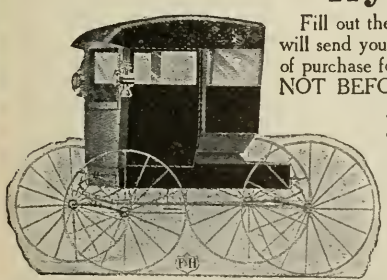

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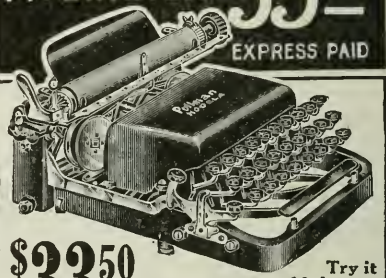

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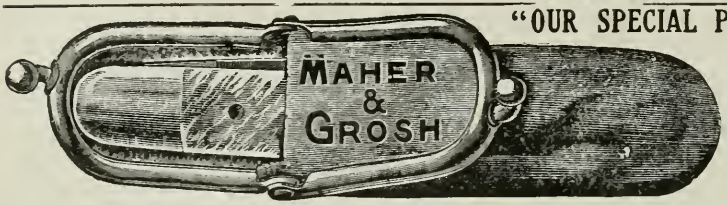

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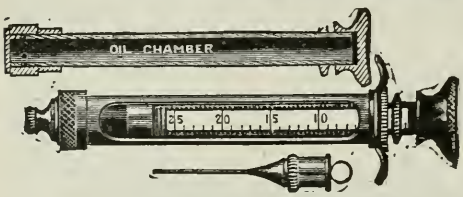

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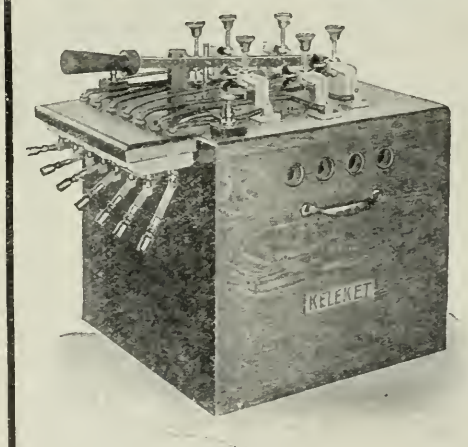

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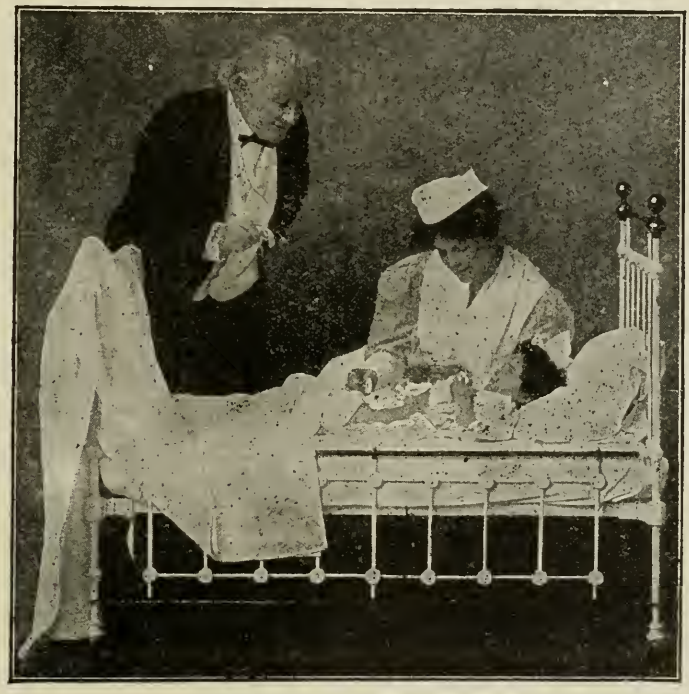

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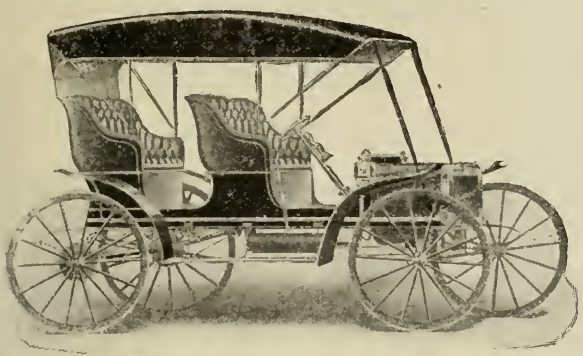

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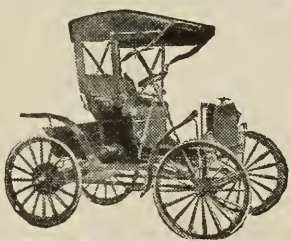

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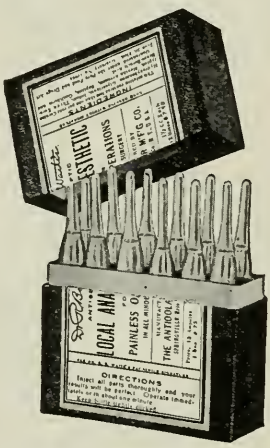

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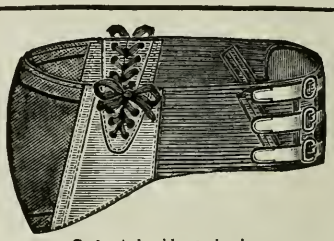

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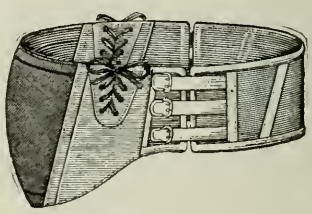

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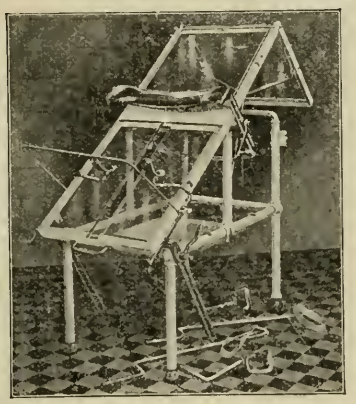

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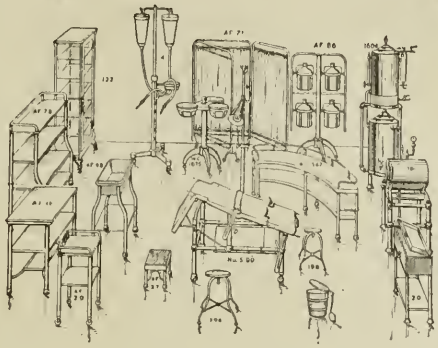

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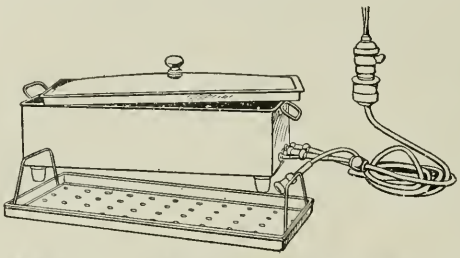

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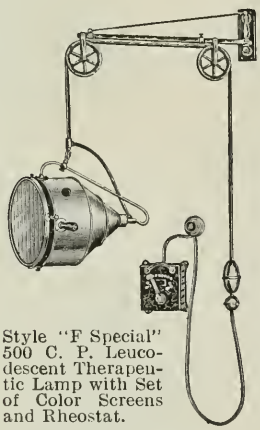

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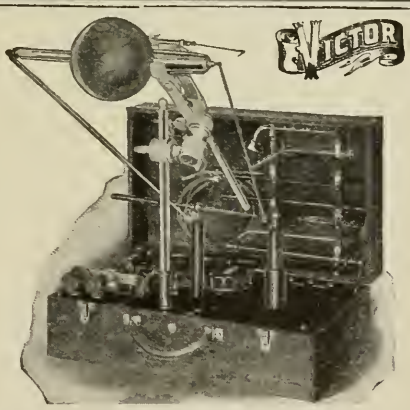

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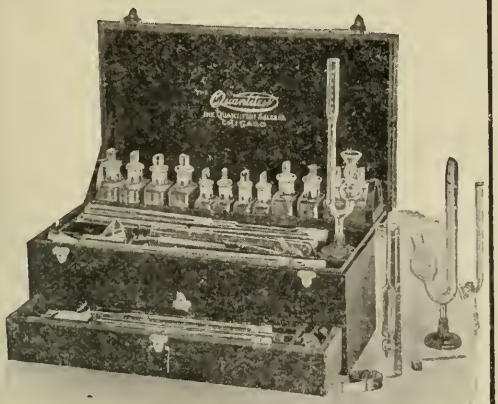

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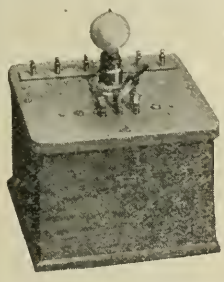

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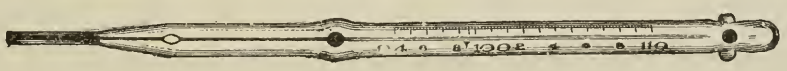

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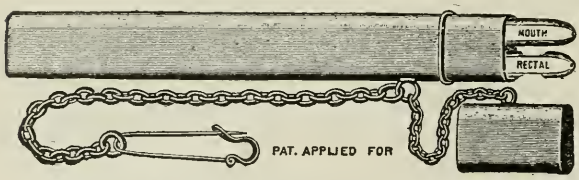

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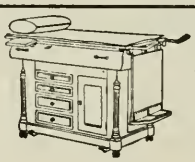

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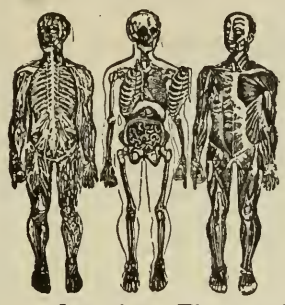

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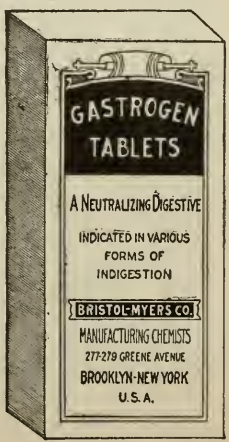

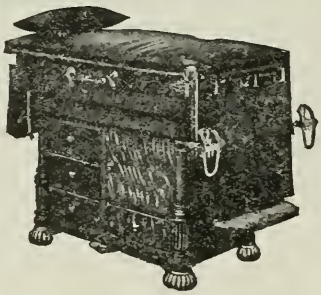

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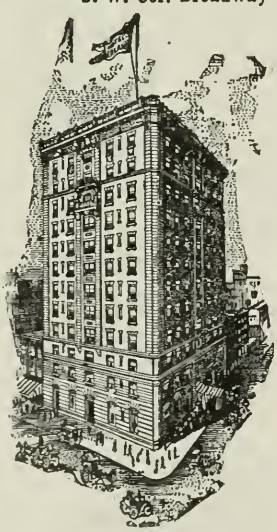

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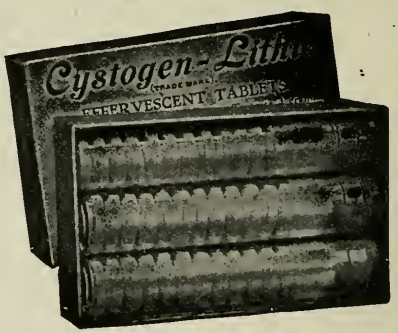

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